PART III - SECTION J
LIST OF ATTACHMENTS

Attachment	Title	Date	No. of Pages
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	Q001 Quality Assurance Plan	12/2/07	1
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	E003 PLC Mapping Report	12/2/07	1
	E004 Software Integration Report	12/2/07	1
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	T001 Training Course Material	12/2/07	1
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J.6	Data Item Descriptions (DIDs), Index of DIDs For CDRLs:		
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	Q001 Quality Assurance Plan	5/31/07	1
	E001 Software/Firmware Documentation	5/31/07	1
	E002 Site Modeling and Site Survey Report	5/31/07	1
	E003 PLC Mapping Report	5/31/07	1
	E004 Software Integration Report	5/31/07	1
	L001 through L004 Not Used		
	L005 Commercial Support Documentation	5/31/07	1
	T001 Training Course Material	5/31/07	1
	T002 Training Course Syllabus	5/31/07	1

SECTION J, ATTACHMENT J.1, EDSA PALADIN V SOFTWARE LICENSE LIST

ITEM DESCRIPTION	MANUFACTURER	UNIT	QTY
1) Foreseer Server Software License	Eaton	EA	1
2) Power Analytics	EDSA	EA	1
3) Paladin Web Views License	EDSA	EA	1
4) Paladin Web Views Editor	EDSA	EA	1
5) Paladin Driver Agent – Qty 30	EDSA	LOT	1
6) Wave Form Feature	EDSA	EA	1
7) Alber Battery Monitoring	EDSA	EA	1
8) 65533 – GE 9650 PQ Meter	EDSA	EA	2
9) 65576 Square D 800 Series meters	EDSA	EA	7
10) 65547 – Square D Circuit Monitor Series 40000	EDSA	EA	6
11) Allen Bradley SLC-5	EDSA	EA	1
12) Familiarization Guide	EDSA	EA	1
13) 1 Day On-Site Training	EDSA	JOB	1
14) 65545 – Square D Enercept	EDSA	EA	10
15) GE Communicator Utility Software	GE	EA	1
16) Square D PMCU	Square D	EA	1
17) Norton Anti Virus Corporate Edition	Symatec	EA	1
18) Rs Linx Classic Gateway Software	Rockwell Automation	EA	1

SECTION J, ATTACHMENT J.2, STATEMENT OF WORK FOR APMS SITE MODELING AND DATA GATHERING SURVEY

1.0 Objective
ARTCC power systems will be modeled using EDSA software. The model will utilize electrical parameters gathered from the site to predict system behavior, as well as provide protective device coordination and short circuit analysis data to the user. The objective of this task is to conduct a site survey, collecting data, part numbers, and system configuration of the ARTCC electrical power infrastructure.

2.0 Support:
The FAA will provide the Contractor with the following data and support:

- Physical Layout and Electrical One-line drawings of each site to be surveyed.
- Direct access to our on-site personnel to coordinate data gathering activities.
- Access to the site
- Assist with the local security requirements for personnel and subcontractors access to the work areas.

3.0 Site Location.
The Contractor shall provide Site Modeling and Data Gathering Survey services at these twenty-one ACEPS sites:

Anchorage ZAN
Kansas City ZKC
New York ZNY
Washington DC ZDC
Chicago ZAU
Cleveland ZOB
Boston ZBW
Salt Lake City ZSL
Seattle ZSE
Miami ZMA
Memphis ZME
Atlanta ZTL
Albuquerque ZAB
Fort Worth ZFW
Houston ZHU
Oakland ZOA
Los Angeles ZLA
Southern California TRACON SCT
Chicago TRACON C90
Dallas/Ft Worth TRACON D10
Academy Trainer, MMAC OKC

4.0 Description of Tasks:
The Contractor shall collect data as required by EDSA Micro Corporation to build the system model, and perform short circuit analysis and protective device coordination studies. Data to be collected shall include but not be limited to the following categories:

1. Utility Short Circuit kVA and X/R at incoming transformer. Obtain Utility fuse-link information. Utility cable length and size from utility pole fuse-link to utility transformers (via manholes) if possible.

2. Feeder sizes/type/length for power system as shown on System One-Line drawing. Bus Duct nameplate data and length.
3. Engine Generator nameplate data, quantity, ancillary equipment such as reactor, MCC nameplate data, and panel board schedules.
4. Fuse sizes and types in Essential Bus.
5. Protective Relay types, location, and settings
6. GE Breaker data and programmer settings for P, C, E, S, SS, N Switchgear.
7. Note any existing Fire Pumps.
8. Chiller nameplate data, quantity, and mode of operation data. Chiller includes controller cabinet, starter, motor, and ancillary equipment.
9. Pump, and motor nameplate data and mode of operation data
10. Miscellaneous equipment such as PT's / CT's.
11. UPS nameplate data, quantity.
12. MCC load data. Breaker data, cable feeder size/qty/length. Record which loads are running during the survey.
13. CPC Front and Rear panel board schedules.
14. Typical Operational Data on the largest loads such as: How many boilers, chillers, cooling tower (pumps), UPMs are running at any given time. Load data taken from PCMS, UPMs, or Signature System if installed. CT and PT pickup points noted.
15. CPC Harmonic Traps – capacitor and reactor component type.
16. Other data as required by EDSA Micro Corporation to build the site model accurately. A detailed inventory of data collection points is listed at Appendix 1 below.
17. The list of parameters (Appendix 1) must be collected and delivered for each site.

Appendix 1 - Detailed List of Data Collection points for Site Survey:

The following list of parameters must be collected for each site.

1. Breakers:
The following data shall be collected for each power circuit breaker:

- Name
- Serial Number
- Breaker Type
- Frame
- Plug
- Sensor
- Count
- Outline/Catalog Number
- Current Setting
- Long Time Delay
- Short Time Pickup
- Short Time Delay
- Ground Fault Pickup
- Instantaneous Pickup
- Ground Fault Delay

2. Chillers
The following data shall be collected for each chiller:

- Name
- Make

- Model
- Style
- Input breaker parameters (as above)
- Variable Speed drive parameters:
- Part Number
- Model
- Serial Number
- Input Voltage Range
- Input Phase (3 phase, Single phase)
- Input Frequency
- Input Amps
- Input KAIC
- Output Voltage
- Output Phase
- Output Frequency
- Max Load (HP)
- Max Load FLA
- Max Load LRA
- Min Load FLA
- Control Power Supply kVA
- Control Power Supply Voltage
- Control Power Supply Frequency
- Control Power Supply FLA
- Oil Pump Supply kVA
- Oil Pump Supply Voltage
- Oil Pump Supply Frequency
- Oil Pump Supply FLA

3. Engine Generator Data
The following data shall be collected for each Engine Generator:

- Name
- Make
- Model
- Build Date
- Serial Number
- Type
- Frame
- KW
- KVA
- RPM
- Voltage
- Frequency
- Amperage
- Power Factor
- Temp Rise
- Field Voltage
- Field Amperage
- Class Ins.

If the generator is equipped with a reactor, the following data shall be collected:

- Name
- Make
- Type
- Ohms
- Amperage
- Voltage

4. Motor Loads
The following data shall be collected for each MCC:
General MCC Data

- Name
- Make
- Type
- Voltage (phase, wire)

The following data shall be collected for each breaker of the MCC:

- Name
- Serial Number
- Breaker Type
- Frame
- Plug
- Sensor
- Outline/Catalog Number
- Current Setting
- Long Time Delay
- Short Time Pickup
- Short Time Delay
- Ground Fault Pickup
- Instantaneous Pickup
- Ground Fault Delay
- Load fed by breaker
- Output cable size, quantity
- Output cable length

5. CPC data
The following Data shall be collected for each CPC:

- Name
- Voltage, Phase, Wire
- Amperage
- KVA
- Catalog number
- Z (%)

The following Harmonic Trap data must be collected for each CPC:

- Name
- Manufacturer
- Specified Harmonic (5th, 7th)
- Amperage

- Catalog number
- Connected, Disconnected

6. Panel Board Data
The following Data shall be collected for each Panel Board (including those found on the CPC):

- Name
- Voltage, Phase, Wire
- Amperage
- Type (MLO, etc.)
- Fed from
- KAIC
- Feeder breaker type(s)
- Feeder breaker amperage, poles

A copy of the each panel schedule shall be included in deliverables.

7. Protective Relay settings
The following data shall be collected for each protective relay:

- Name
- CT, PT ratio
- ANSI device designation (32, 51, etc…)
- Manufacturer Catalog Number
- Adjustment range
- Pickup settings

8. Utility Transformer data
The following data shall be collected for the utility source:

- Utility Name
- Utility Contact Data

The following data shall be collected for all utility transformers:

- Name
- Owner (FAA, utility)
- Make
- Model
- Serial Number
- KVA
- Primary Voltage, Current
- Secondary Voltage, Current
- Z (%), X/R ratio
- BIL
- Taps
- Meter
- Cooling type

9. Dranetz Signature System (if installed)
The following information shall be collected on the Dranetz installation:

- Name
- IP address

- Voltage
- Wiring (wye, delta)
- PT primary/secondary
- CT Primary/secondary

10. UPM data

The following information shall be collected for each UPM:

- Name
- Make
- Model
- Serial Number
- KVA
- KW
- PF
- AC input Voltage
- AC input amperage
- DC Link Voltage
- DC link amperage
- AC output Voltage
- AC output amperage
- UPM fuse sizing, type
- Input breaker Model
- Input breaker trip setting

11. Mode of Operation Data

Operational data shall be collected:

- Number of UPMs running / standby in normal operation
- Number of chillers running / standby in normal operation
- Number of boilers running / standby in normal operation
- Current loading of entire site (amperages, from Dranetz)

12. Additional Miscellaneous Data

Other data pertinent to the modeling effort shall be collected:

- E-bus fuse size, type
- CT and PT data

SECTION J, ATTACHMENT J.3, STATEMENT OF WORK FOR APMS PROGRAMMABLE LOGIC CONTROLLER MAPPING

1.0 Objective

The objective of this task is for the Contractor to provide PLC Mapping services to verify the functionality of the Programmable Logic Controls (PLCs) at twenty-one ARTCC Critical and Essential Power System (ACEPS) sites.

2.0 Government Furnished Services

FAA will provide the Contractor with the following data and support:

- Access to FAA drawings and specification
- Access to FAA Requirements relating to APMS
- Access to FAA facilities
- Other data as required to assist the Contractor in this task order

3.0 PLC Mapping

3.1 Site Location.

The Contractor shall provide PLC mapping services at these twenty-one ACEPS sites:

Anchorage ZAN
Kansas City ZKC
New York ZNY
Washington DC ZDC
Chicago ZAU
Cleveland ZOB
Boston ZBW
Salt Lake City ZSL
Seattle ZSE
Miami ZMA
Memphis ZME
Atlanta ZTL
Albuquerque ZAB
Fort Worth ZFW
Houston ZHU
Oakland ZOA
Los Angeles ZLA
Southern California TRACON SCT
Chicago TRACON C90
Dallas/Ft Worth TRACON D10
Academy Trainer, MMAC OKC

3.2 Site Task

This PLC mapping service will consist of the following:

- Scope would include site survey/modification, PLC software installation, and interface verification.
- Verify mapping of existing PLC network.
- Update PLC software to allow interface of the Rockwell RSLinx software.
- Verify proper Operation of OPC server and modify mapping logic as required.

- The PLC Mapping Effort involves those items needed to get an RS-485 to Ethernet / IP bridge installed and working between the existing ARTCC or TRACON PLC network and the APMS PALADIN Live Server.
- Includes post-installation documentation.

3.3 Work Description

Integration Services of the "RS-485 to Ethernet/IP Bridge" with the existing PLC network will be provided and includes:

- An "On-Site" survey of the existing PLC Network and verification of the mapping logic of existing PLC network will be performed
- Purchase and Installation of the following PLC network components:
  - (1) 4-slot ControlLogix rack,
  - (1) ControlLogix power supply,
  - (1) ControlLogix Ethernet module,
  - (1) DH-485 interface module,
  - (1) 1761-NET-AIC module (goes from the PLC network to theDH-485 module).
- PLC software installation and update to allow interface with Rockwell RS Linx software
- Installation of Rockwell RS Linx software on Paladin Live Server as OPC server
- Verification of proper operation of OPC server software and modification of mapping logic as needed
- Interface verification. (The Contractor will test and verify all PLC points in the system that can be exercised during the visit to the ARTCC and TRACON.)
  - The complete PLC mapping can only be ascertained by exercising all the points in the PLC over time and then observing the results. With the cooperation of the site, the contractor will exercise as many points as allowed.
  - Any changes (as the site team exercise all points) are expected to be minor and can be addressed during normal, routine site visits by the contractor as approved by the FAA.

Detailed Breakdown Explanation of PLC Mapping Integration

Allen Bradley SLC-500 PLC Integration and Upgrades. The contractor will add a subroutine to the three existing SLC-500 PLCs at the ARTCC or TRACON.

- A subroutine will be added to each of the PLCs. This subroutine copies the Input and Output Data Tables to isolated memory locations. This allows the RS-Linx software that is installed on the APMS server, to read the current physical inputs and outputs set by the PLC program. This also ensures that the server cannot alter a memory location by accident and affect the operation of the PLC.

- The site electrical prints will then be examined to determine if the listing of I/O points required for the Paladin system is present in the system. The memory copies of the I/O points align with the I/O memory addressing. Therefore input I: 1/12 corresponds to N30: 1/12. This makes the conversion of the electrical prints very simple. The engineers will work to update the mapping in the Paladin configuration. The mapped points will then be verified by exercising each monitored I/O point.

Allen Bradley DH-485 to Ethernet Bridge Upgrade. The contractor will install hardware that allows the server to communicate with the existing PLCs via Ethernet. (DH-485 is a proprietary network developed by Allen Bradley that allows multiple SLC-500s to communicate with each other.)

- A small PLC rack, a power supply, DH-485 network card, an Ethernet card and an electrical protocol converter will be mounted in the PCMS enclosure in the ARTCC.

- The existing DH-485 network will be split and reconnected to the new electrical protocol converter.
- The Ethernet card will be configured with the site IP addressing.
- The DH-485 card will be configured to communicate with the SLC-500s in the network.

Installation and Configuration of the RS Linx Software

- The RS-Linx software will be installed on the APMS Paladin Live server and site licensing is configured and installed
- The RS-Linx software will be configured for an OPC server with connections to each of the SLC-500 processors.
- The RS-Linx software will be then registered with Rockwell Software

SECTION J, ATTACHMENT J.4, STATEMENT OF WORK FOR APMS SOFTWARE INTEGRATION AND CONFIGURATION

1.0 Objective

The objective of this task order is to provide installation, configuration and integration services for key APMS component software for major end items of the APMS equipment.

2.0 Support

FAA will provide the Contractor with the following data and support:

- Access to FAA drawings and specification
- Access to FAA Requirements relating to APMS
- Access to FAA facilities
- Other data as required to assist the Contractor in this task order

3.0 Software Integration and Configuration Services.

3.1 Site Location

The Contractor shall provide configuration and integration of key APMS software components at these twenty-one ARTCC Critical and Essential Power System sites (ACEPS):

Anchorage ZAN
Kansas City ZKC
New York ZNY
Washington DC ZDC
Chicago ZAU
Cleveland ZOB
Boston ZBW
Salt Lake City ZSL
Seattle ZSE
Miami ZMA
Memphis ZME
Atlanta ZTL
Albuquerque ZAB
Fort Worth ZFW
Houston ZHU
Oakland ZOA
Los Angeles ZLA
Southern California TRACON SCT
Chicago TRACON C90
Dallas/Ft Worth TRACON D10
Academy Trainer, MMAC OKC

3.2 Site Task

These following services shall be provided:

1. The Contractor shall install, configure and integrate the software for the following key APMS sub systems as per previous similar APMS type projects (Denver, Minneapolis and Indianapolis ARTCCs): See Appendix A to this document for Integration Service Details for Paladin Live Power Quality Meter Integration and Setup.
    - Square D CM4000T Power Quality Meters (at the S Bus, SS Bus, P Bus, E Bus, C Bus A and C Bus B)
    - Square D Enercepts (UPMs 1-5)
    - Square D PM 810 Power Quality Meters (CPCs A, B, C and E, F, G, H)

- GE Nexus Meters 9650Q (N Bus and Load Bank)
- Alber Battery Monitoring Systems
- Ametek Sequence of Events Recorder
- Universal Input Enclosures for Engine Control Panels (EG 1 through 6)

2. The Contractor shall provide installation, configuration and integration software services for the key aforementioned APMS components.
    - The Contractor shall be responsible to provide electrical and mechanical trade labor during the installation, configuration and integration of the aforementioned APMS software components.
    - Tracking shall include, but not be limited to, performance of the project team, project cost, percentage of task completions, schedule conflicts and engineering concerns.
    - The FAA will provide connection of the hubs to the network.
    - Extend the task duration to complete the work at all the sites.

3.3 Work Description

The Contractor shall provide installation, configuration and software services for the aforementioned key APMS components in paragraph 3.2.

Appendix A -Integration Service Details for Paladin Live Power Quality Meter Integration and Setup

Installation Verification of Power Quality Meters that are Waveform Capable

1. To determine if the meter is installed correctly, the meter must and will be placed on load.

For the GE Nexus Meter and Square D CM4000 Meters:

The phase rotation will be verified to validate correct installation by either:

- Phase Diagrams in Paladin (this works for the Nexus and the Square D CM4000)
- Phase Diagram in the Square D 4000 Meter utility software
  (this is the only graphical display)
- GE Communicator software for the Nexus meters
- LCD option that may be supplied with Square D meter

For the Square D PM810 and Enercept Meters:

The Enercept and 810 meters cannot be tested in the same method and they also do not have waveform capability. The Enercept meters are labeled A-B-C. The contractor will visually inspect this until the location is hot. The CT's also have directional arrows to allow the Contractor to verify that the install teams have installed them with flow in the correct direction. A serial interface connection is not available with the SQD PM810 or the Enercept meters without disconnecting from the server and Modbus software will be used to communicate to the meters.

For example, the following steps will be performed for UPM PQM meter validation and integration:

- The UPM's at the ARTCCs (normally 5 UPMs) all have input and output voltage and current displayed as analog values on their respective gauges. After the Enercept meters are installed (10 meters per 5 UPM site), for verification the Contractor will compare the displayed UPM analog values with information being displayed on the Paladin Live server screen shots. Alternatively the contractor can also use a hand held probe or meter to read/verify the same values.

- The Square D PM 810's (mounted on the Critical Power Centers) of course have the LCD display and the Contractor will use the display to validate voltage and current on all three phases on the PM 810s. Modbus software will be used to perform similar validation with the Enercept meters.

For the Ametek Event Recorder (Sequence of Events Recorder):

With regard to the Ametek Rochester SER the following sequence of activities will be performed:

1. The Contractor will short out every pair of wire (approximately 88 pairs) to the Rochester SER to make sure that the anticipated pair of wires matches what we expect for each breaker. This does not guarantee that the breaker type (either normally open or normally closed) is correct from the FAA documentation, and the only way to verify that is to close or open the breakers.

    a. This typically will be done with the cooperation of the FAA site team as part of the commissioning test and the initial 4ms waveform capture test.

2. Any changes required will be documented by the Contractor and the Rochester programming is updated to reflect those changes.

For the Alber Battery Monitoring System (BDS-256):

With regard to the Alber Battery Monitoring System (BDS-256), the following sequence of activities will be performed:

1. The Contractor will verify communication from the Alber Battery Monitoring System (BDS-256)
2. The Contractor will interface with the Alber monitoring system through Modbus
3. The Contractor will validate the Paladin Live Interface and Data Collection with the Alber screen values in real time.
4. The Contractor will insure that Paladin Live collects, stores, trends and displays the exact data the Alber Battery System is displaying and collecting.

For the Universal Input Enclosures (UIEs):

With regard to the Universal Input Enclosures (UIEs), which are mounted on the inside of the front doors of each of the Engine Control Panels (Six per ARTCC), the following sequence of activities will be performed:

1. The Contractor will validate the correct readings in Paladin Live against the analog gauges mounted on the outside of the front panel of the Engine Control Panels.
2. The Contractor will validate communication to the UIEs.

For Waveform Capable Power Quality Meters, the Contractor will also install the setup utilities from GE and Square D. For example, once phase rotation accuracy is confirmed, the following additional steps are done for the CM4000T Meters:

The information contained in this segment can be used to set up new Square D CM4000 meters or to change an existing configuration. The CM4000 is an integral part of the Paladin Power Analytics system and normally once configured never requires any modification.

The CM4000 and CM4000T are state-of-the-art power quality meters capable of providing very sophisticated analysis as well as waveform information based on hundreds of triggering thresholds. The CM4000 is designed to operate as a stand-alone meter or as part of a network as in the Paladin system.

The initial setup of the CM4000 requires using a specialized software utility from Square D called the PMCU software. PMCU software is available at no charge from the Square D web site and will normally be installed by the contractor on the Paladin server for initial setup and to modify settings if desired.

After the Square D CM4000 or 4000T has been physically installed and properly connected to the Paladin TCP/IP network, the meter will be fully configured at the Paladin server EXCEPT for setting the TCP/IP address at the meter.

The Square D meter must have the IP address and the gateway set at the meter prior to attempting to configure the meter at the Paladin server. The simple steps required setting the IP address and the IP gateway are covered elsewhere. Remember that you must know the following to configure the meter correctly:

- The IP address of the meter
- The IP gateway address for the subnet that includes the meters
- The CT ratios

- The PT ratios (if PT is used, if not the meter will be "directly connected")
- The nominal voltage
- The wiring configuration (3 or 4 wire Delta or WYE)

Installing the PMCU software (NOTE – this information is included for reference only, the contractor will have previously installed the PMCU software on all Paladin servers)

Select the PMCUInstall.exe file (this will install the PMCU installer software and associated files). Remember this is a compressed file that was a 93MB before it is expanded. The PMCUInstall.exe file will create a new folder called Powerlogic with two sub-folders (C:\POWERLOGIC\PMCU\Install\PMCUv1). The PMCUv1 folder will contain the "setup.exe" file you need to run to install the software.\

Select all the defaults when asked any questions about the installation. After complete, several new applications will appear in the start menu under Powerlogic. To configure the CM4000 or 4000T you will use the meter configuration utility.

- Select the meter configuration utility

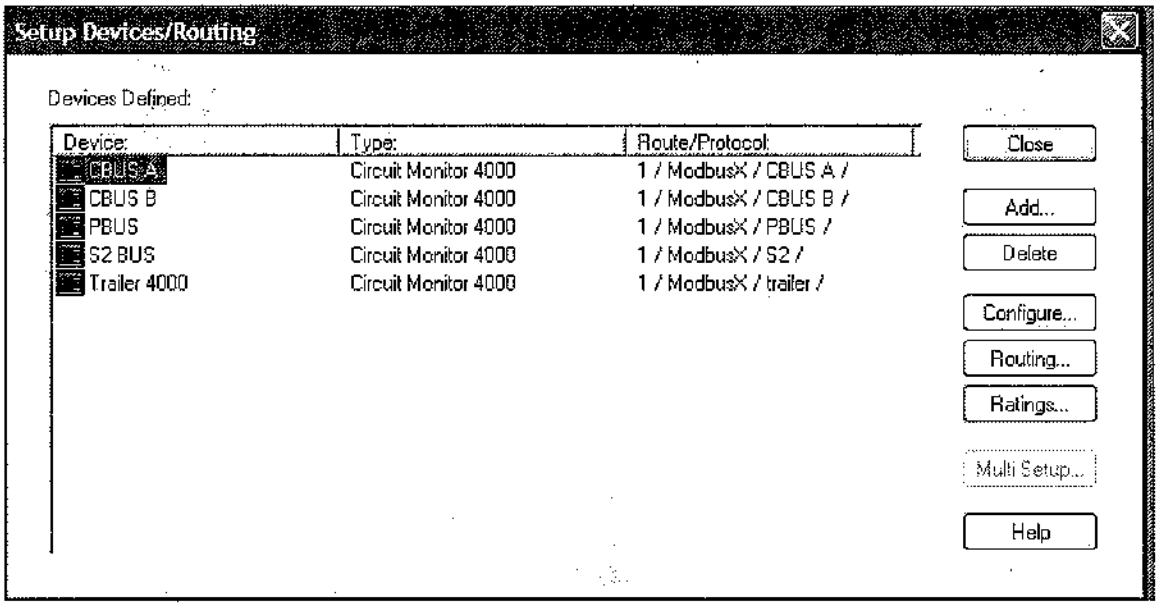
NOTE – The contractor uses the default login and password for all CM4000 installations. The default login is "master", the default password is "master".

1. If this is a new installation first create a new system (located under the system option) using the system name for the location. If this is an existing system, select open system selecting the name of the system at this location.
2. Place the system "online" by selecting the online option under the system option. You will see the same system name as the one created in new system, or the one selected in open a system.
3. Select "communications connection…" under the setup option. Each meter must have its device communications configured. This is done by:
    - Select Add
    - Enter a device name (normally the name of the bus where the meter is located).
    - Use Modbus/TCP and select continue
    - Enter the IP address for this meter

Once the meter communications is established, changing any set points can be done using the devices/routing option under setup.

4. Select setup devices/routing. Each meter configuration must now be associated with the correct device communications setup. This is done by:
    - Select Add and add a device for each communication created (one to one with the device setup in step two).

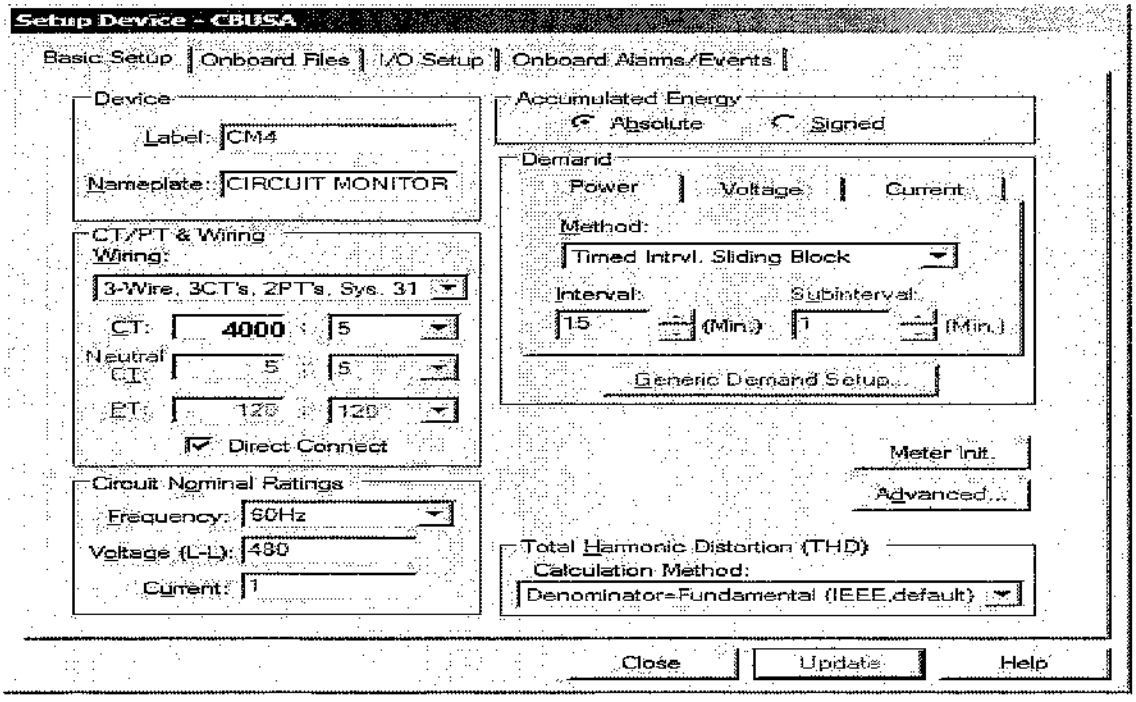
An example system would look like this:



The next step is to configure the meters. If you are changing an existing meter you will start here (after having put the system online and opened for edit).

There are three primary tabs involved in configuring the meters correctly. Within each tab, there are many options and configurations selections that are not used by Paladin. Sites and users may elect to change their options on a periodic basis.

After opening a meter by either selecting the meter (double clicking on the meter) or highlighting the meter and selecting configure. The following screen will appear:



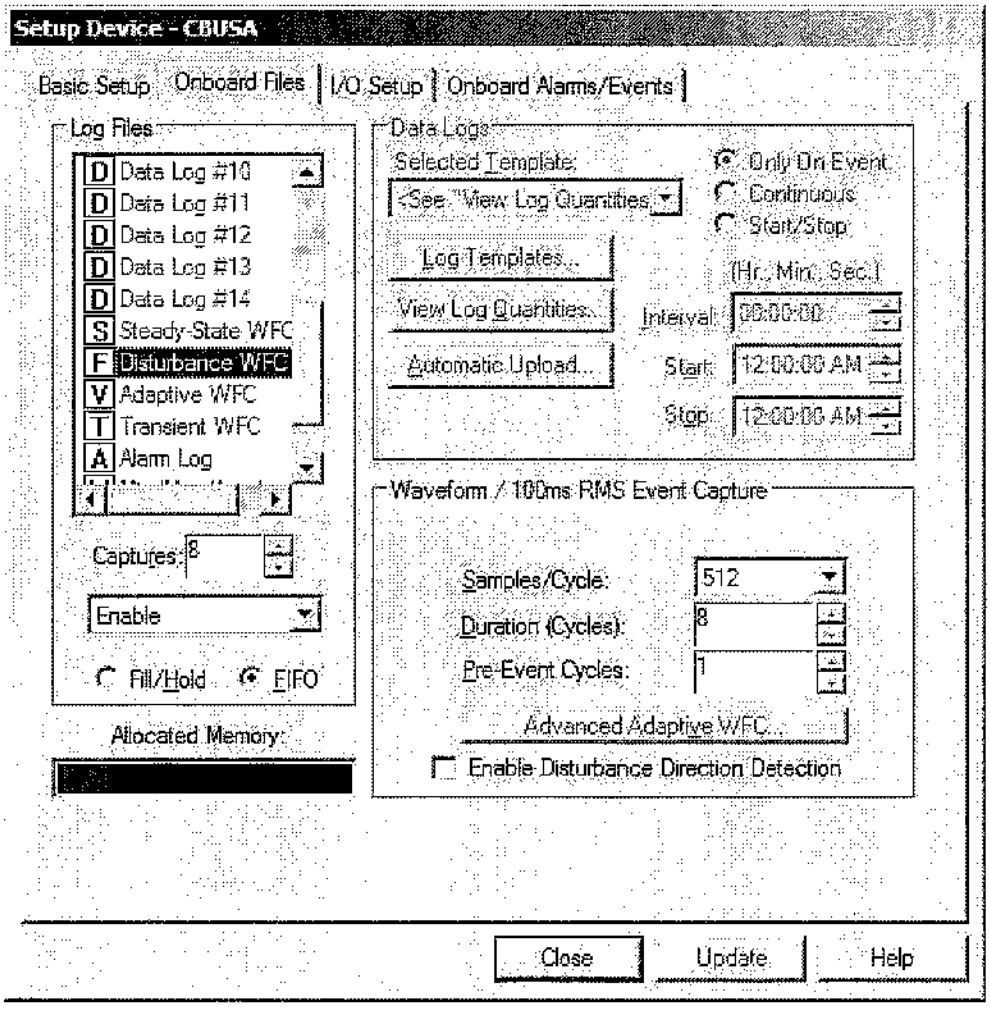
For an initial setup, you will change the wiring (to the appropriate 3 or 4 wire system), the CT ratios and the PT ratios. Note that in this example the meter is directly connected so PT is ignored. You will also set the appropriate voltage (in this case 480). Each meter will have this screen set.

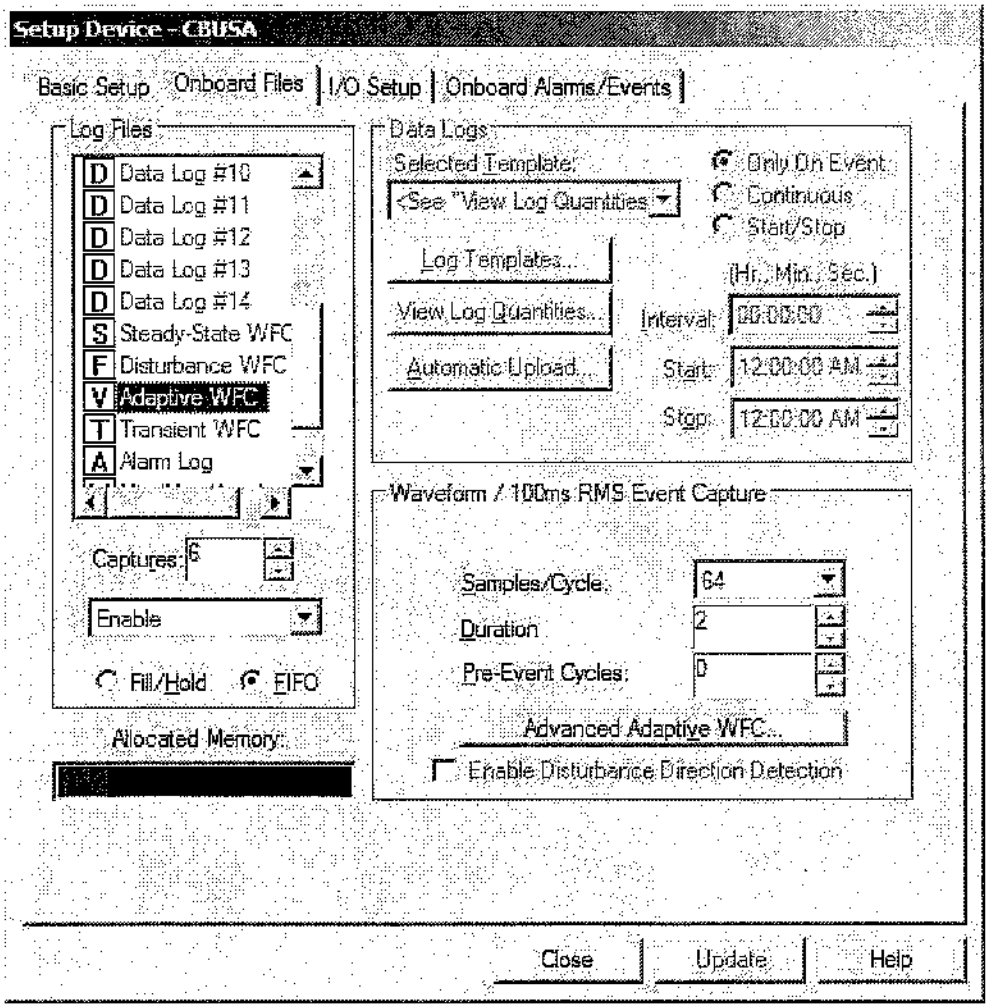
Notice from this screen that there are four tabs associated with the meter settings. We will not use the I/O setup.

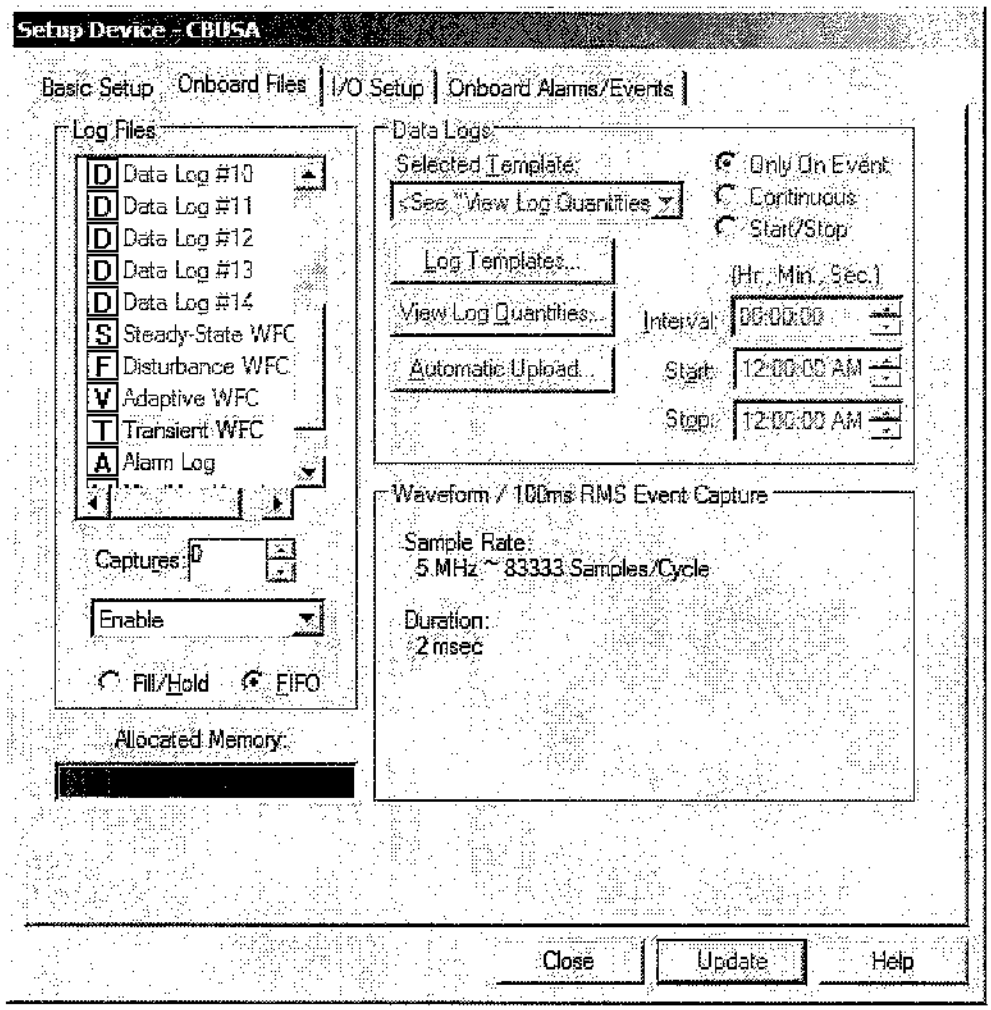
The next step is to setup the Onboard Files. The CM4000 configuration requires that files that will capture information be setup then applied for each power disturbance type.

Each meter will have the following settings modified:

- Standard – No changes required from the factory default
- Disturbance
- Adaptive
- Transient




Setup Device - CBUSA
Basic Setup
Onboard Files
I/O Setup
Onboard Alarms/Events
Log Files
D Data Log #10
D Data Log #11
D Data Log #12
D Data Log #13
D Data Log #14
S Steady-State WFC
F Disturbance WFC
V Adaptive WFC
T Transient WFC
A Alarm Log
Captures: 6
Enable
Fill/Hold
FIFO
Allocated Memory:
Data Logs
Selected Template:
<See "View Log Quantities
Only On Event
Continuous
Start/Stop
Log Templates...
View Log Quantities...
Automatic Upload...
(Hr., Min., Sec.)
Interval: 00:00:00
Start: 12:00:00 AM
Stop: 12:00:00 AM
Waveform / 100ms RMS Event Capture
Samples/Cycle: 64
Duration: 2
Pre-Event Cycles: 0
Advanced Adaptive WFC...
Enable Disturbance Direction Detection
Close
Update
Help

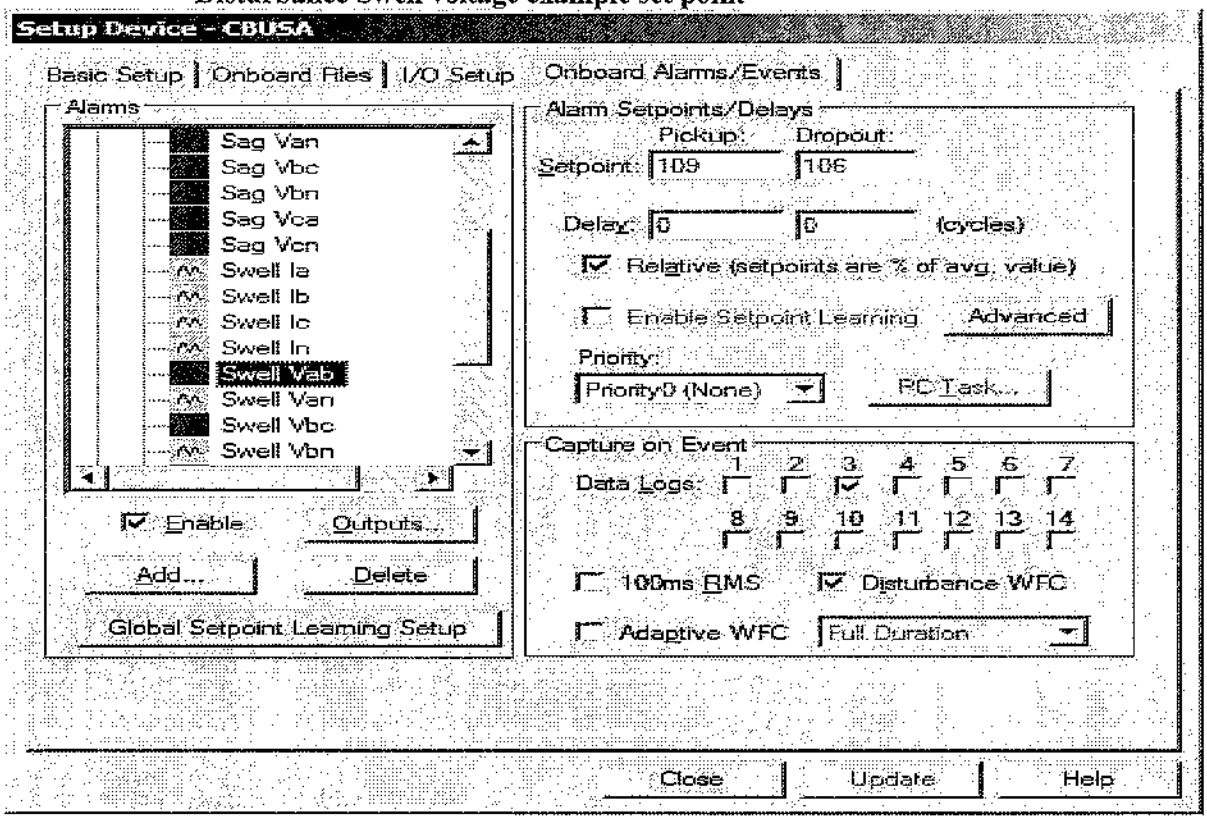


After the Onboard files are setup, capturing waveforms requires setting the appropriate Onboard Alarm/Events. This section includes a sample screen from one meter, but each meter will have to be set separately. There are many additional alarm trigger points that are not normally used by Paladin but can be enabled at any future date. Each meter will have alarms enabled (set points for wave form capture) from:

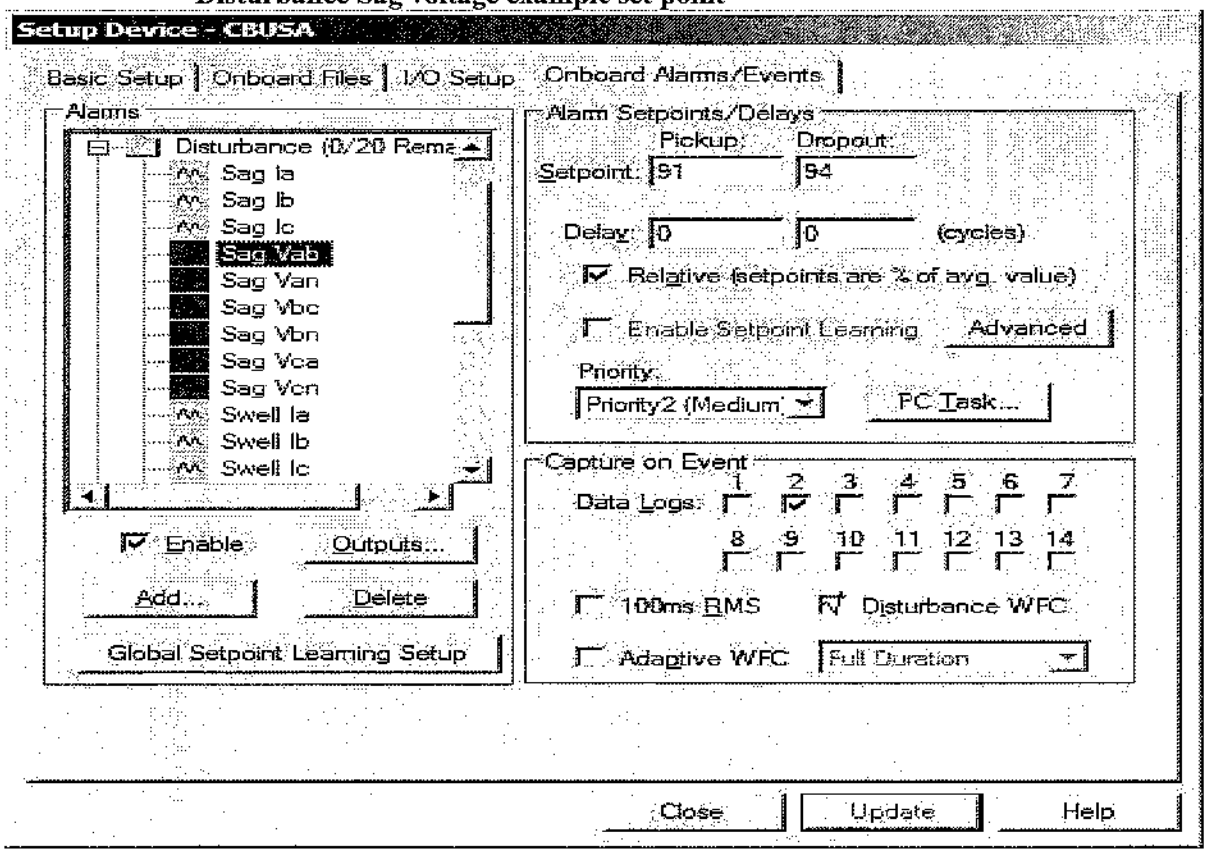
- Disturbance
- High Speed
- Adaptive
- Transient
- Waveshape

Example settings are included in the table following these screen setups. Configuring the meter requires selecting each point in the table, adjusting the settings as listed in the table and then moving to the next point.

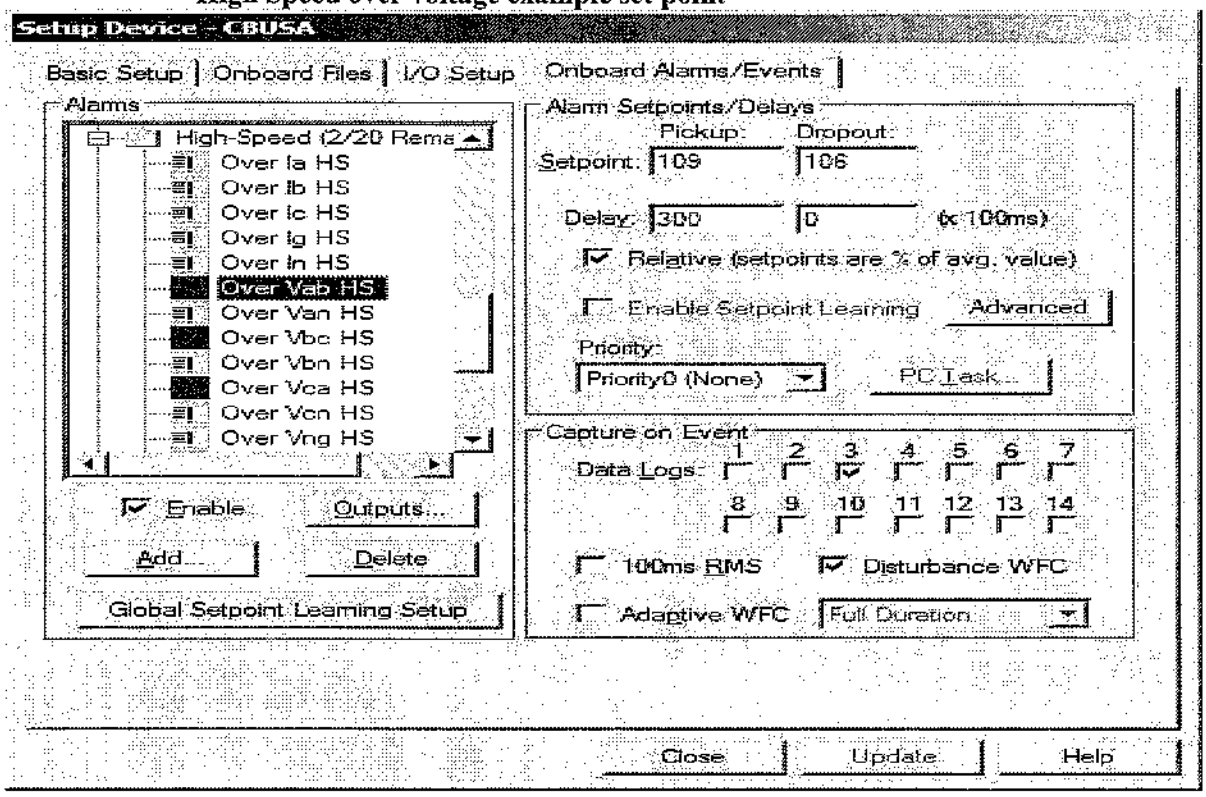
Disturbance Swell voltage example set point



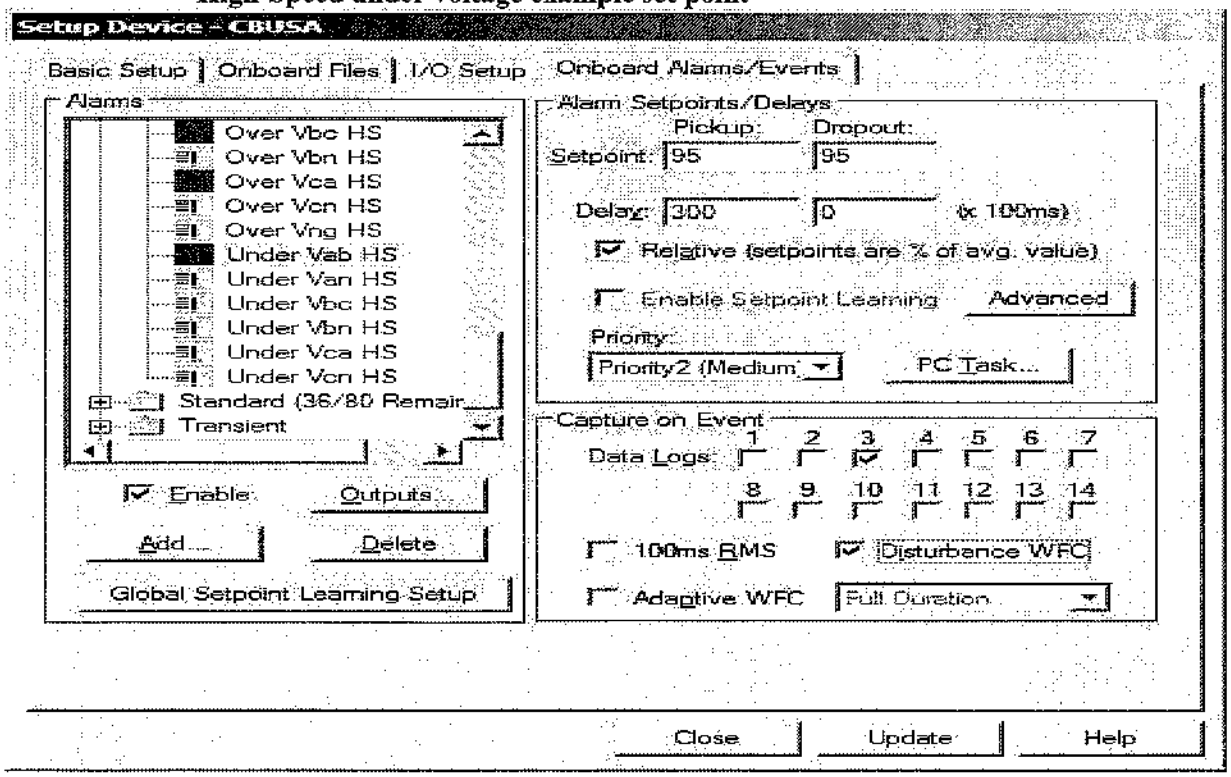
Disturbance Sag voltage example set point

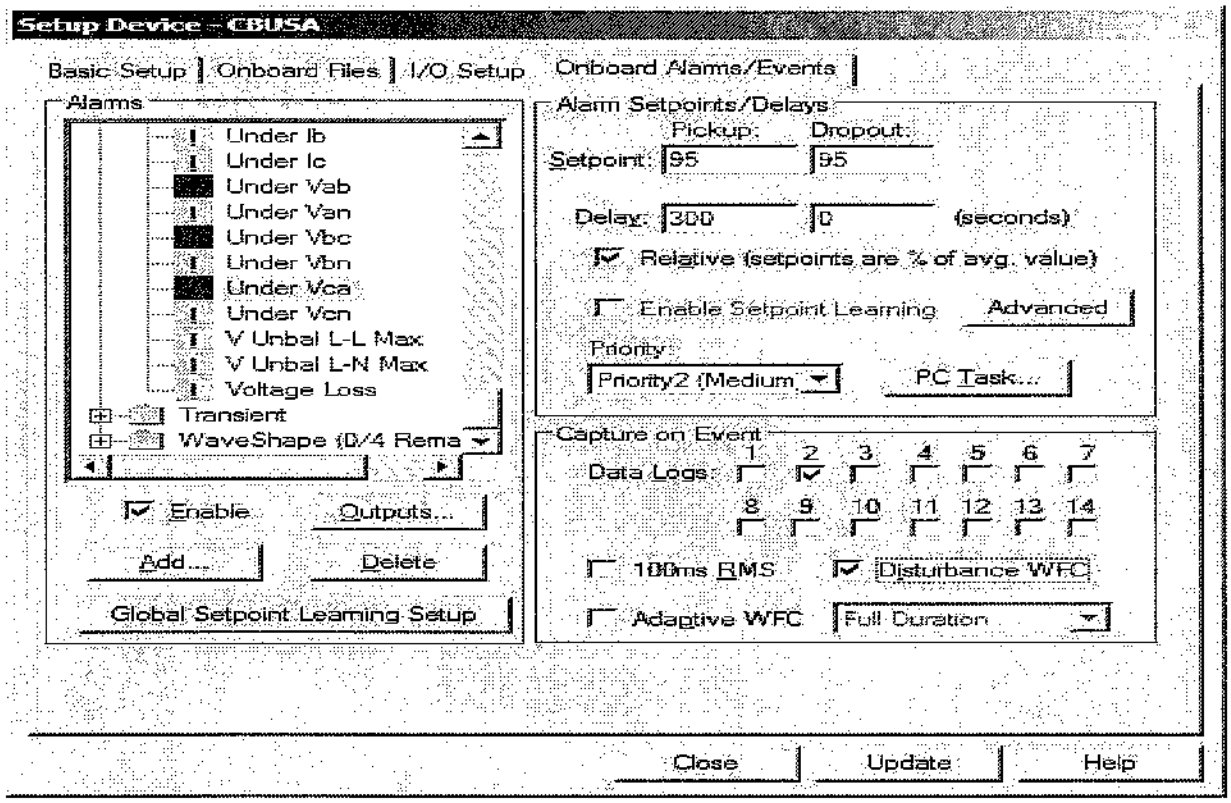


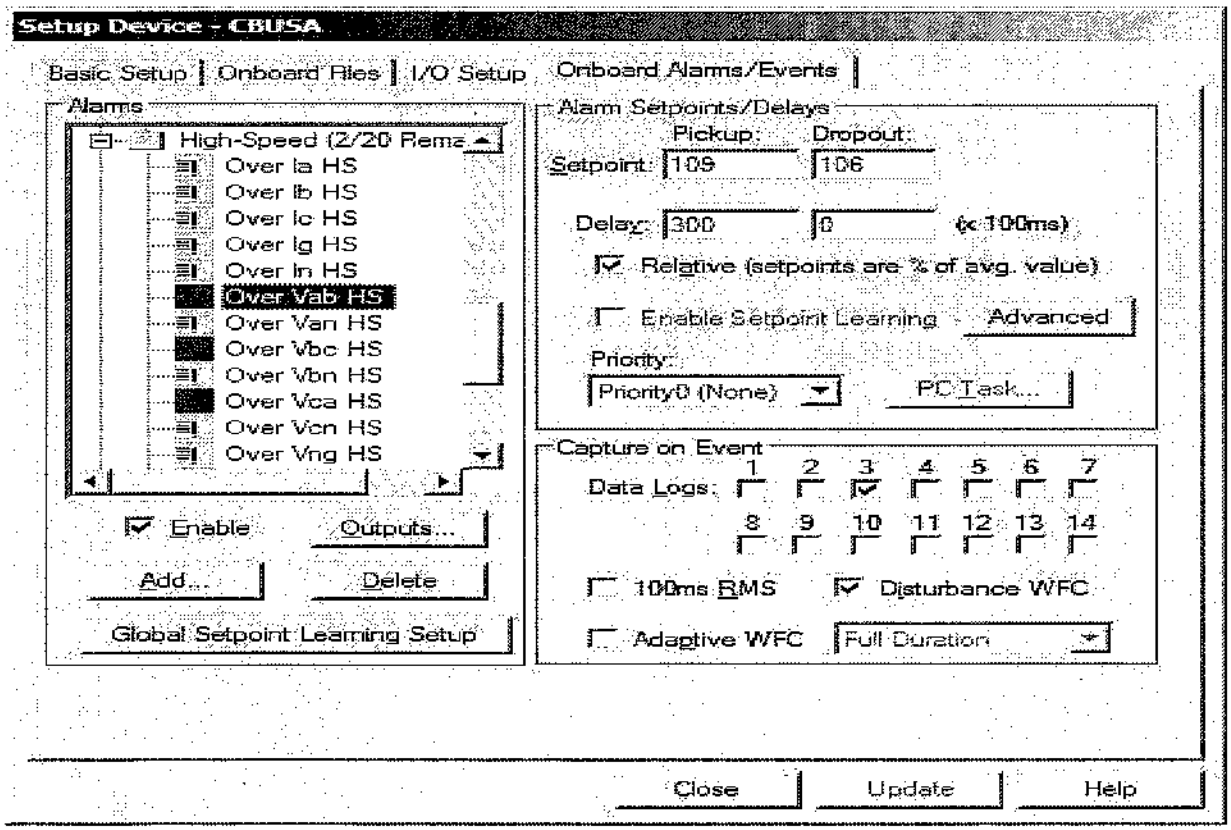
High Speed over voltage example set point



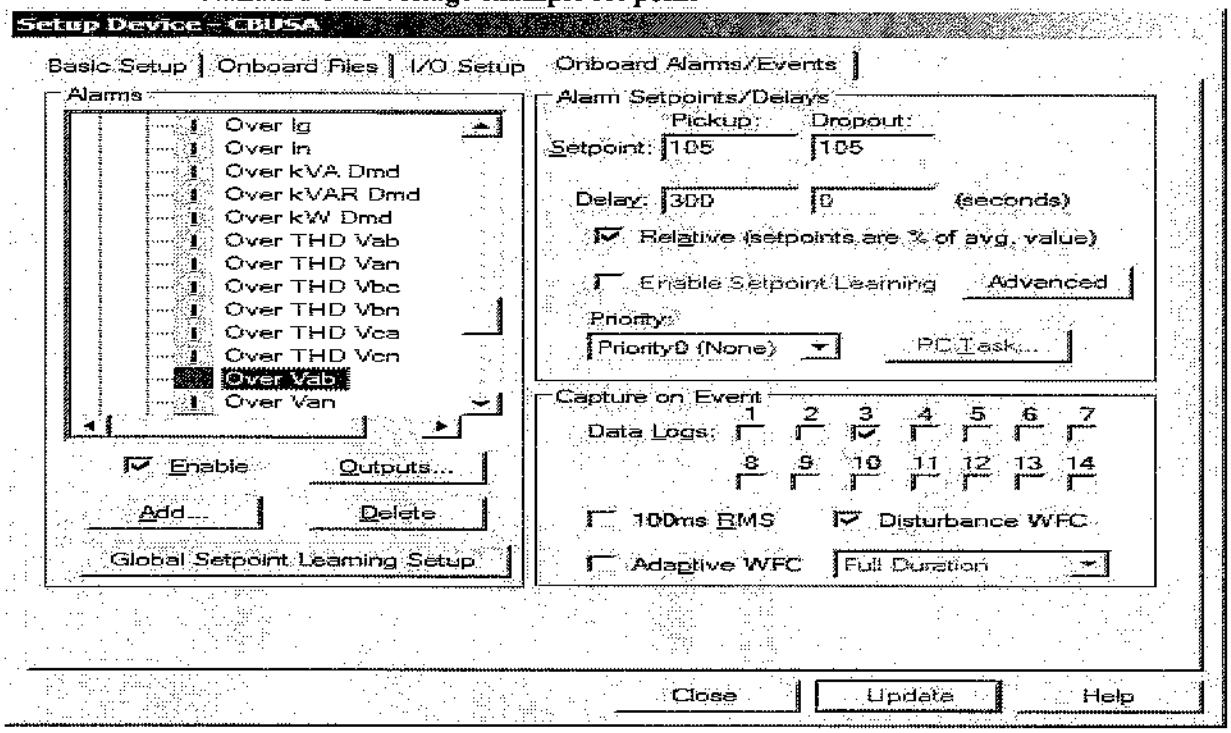
High-Speed under voltage example set point



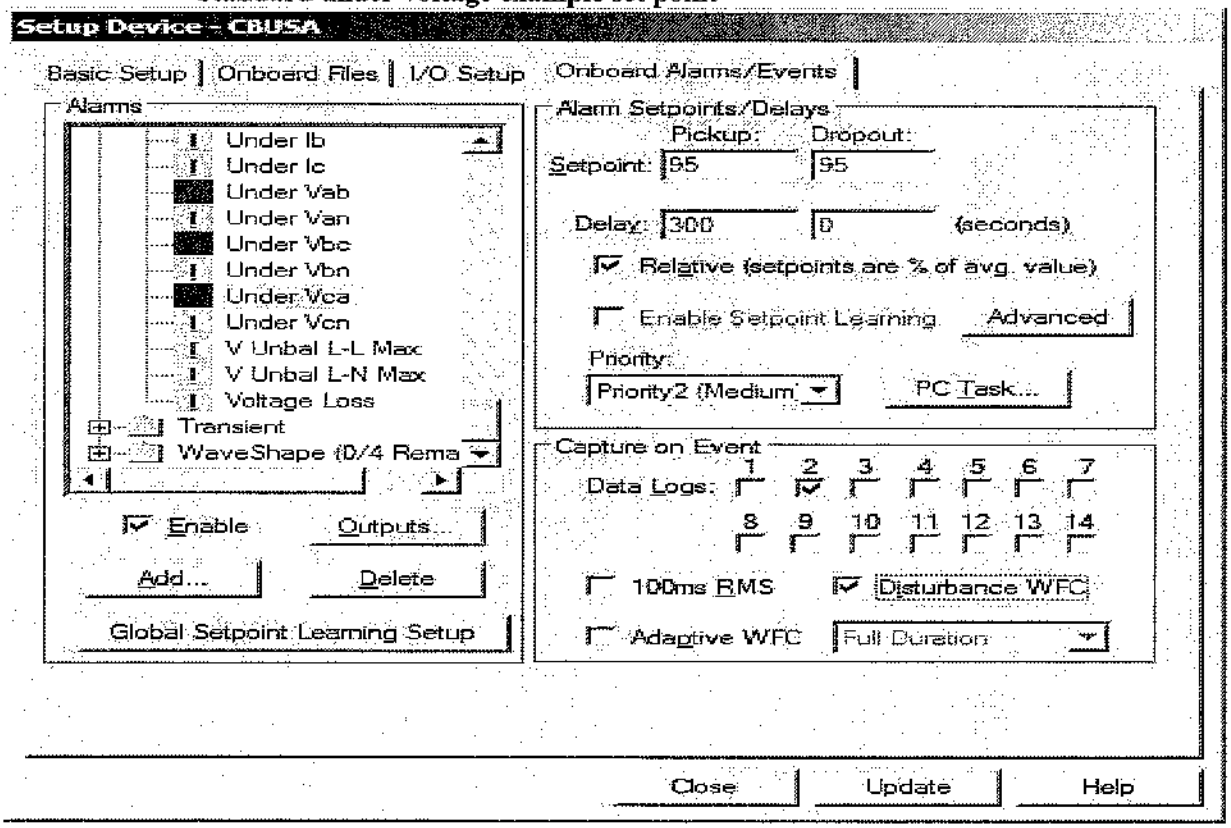

Setup Device - CBUSA
Basic Setup
Onboard Files
I/O Setup
Onboard Alarms/Events
Alarms
Under Ib
Under Ic
Under Vab
Under Van
Under Vbc
Under Vbn
Under Vca
Under Vcn
V Unbal L-L Max
V Unbal L-N Max
Voltage Loss
Transient
WaveShape (D/4 Rema
Enable
Outputs...
Add...
Delete
Global Setpoint Learning Setup
Alarm Setpoints/Delays
Pickup:
Dropout:
Setpoint:
95
95
Delay:
300
0
(seconds)
Relative (setpoints are % of avg. value)
Enable Setpoint Learning
Advanced
Priority:
Priority2 (Medium
PC Task...
Capture on Event
Data Logs:
1
2
3
4
5
6
7
8
9
10
11
12
13
14
100ms RMS
Disturbance WFC
Adaptive WFC
Full Duration
Close
Update
Help


Setup Device - CBUSA
Basic Setup
Onboard Files
I/O Setup
Onboard Alarms/Events
Alarms
High-Speed (2/20 Rema
Over Ia HS
Over Ib HS
Over Ic HS
Over Ig HS
Over In HS
Over Vab HS
Over Van HS
Over Vbc HS
Over Vbn HS
Over Vca HS
Over Vcn HS
Over Vng HS
Enable
Outputs...
Add...
Delete
Global Setpoint Learning Setup
Alarm Setpoints/Delays
Pickup:
Dropout:
Setpoint:
109
106
Delay:
300
0
(x 100ms)
Relative (setpoints are % of avg. value)
Enable Setpoint Learning
Advanced
Priority:
Priority0 (None)
PC Task...
Capture on Event
Data Logs:
1
2
3
4
5
6
7
8
9
10
11
12
13
14
100ms RMS
Disturbance WFC
Adaptive WFC
Full Duration
Close
Update
Help

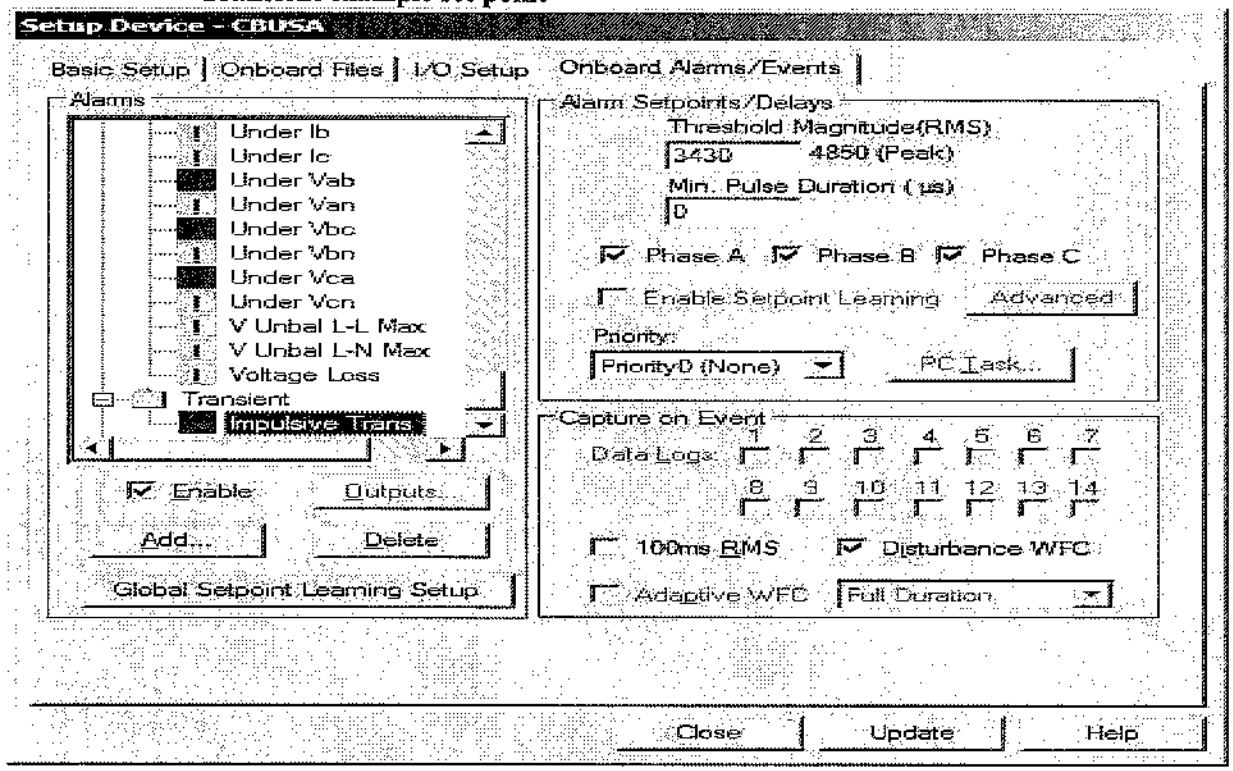
Standard over voltage example set point



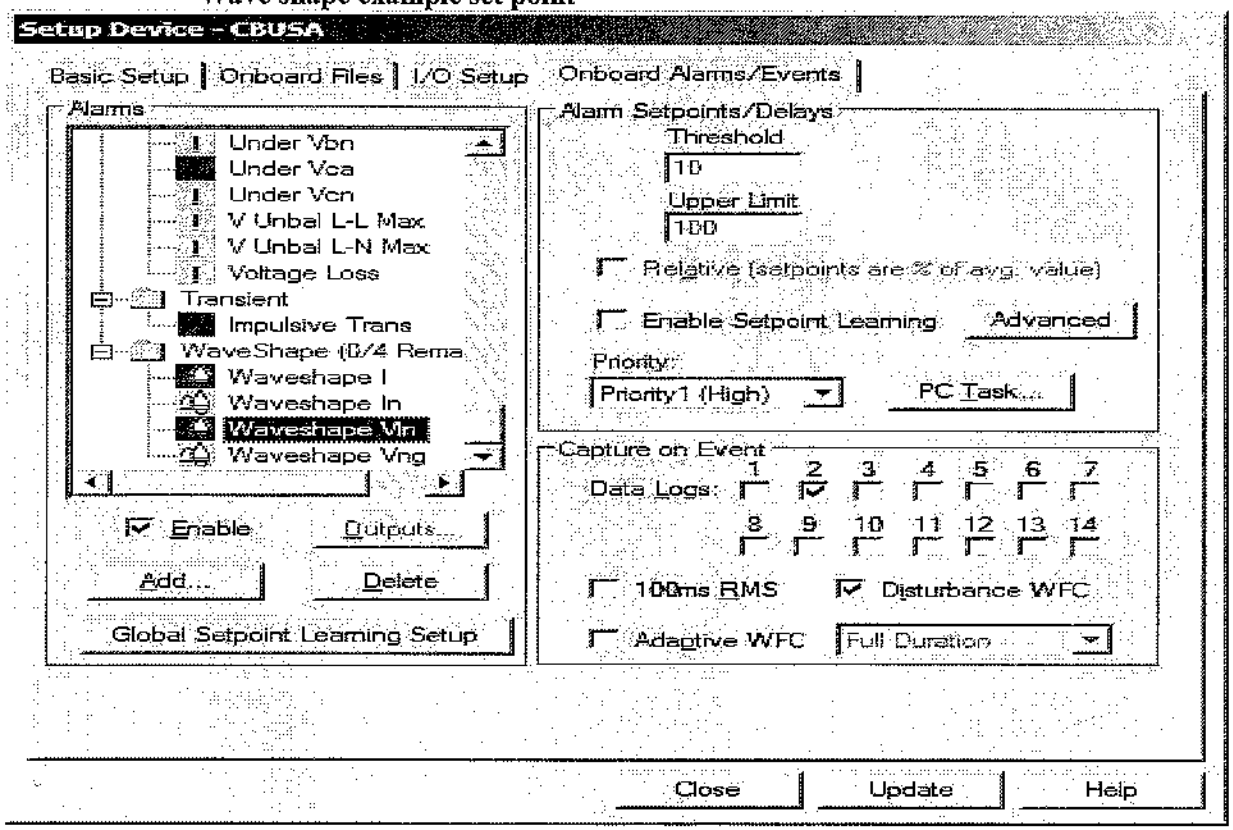
Standard under voltage example set point



Transient example set point



Wave shape example set point



		PT	*CT*		*Wiring*	
Example						
C BUSS A CM 4						
	CIRCUIT Direct Connect		4000:5	3-Wire		
	Severity		***Pickup***	***Delay***	***Dropout***	***Delay***
Example standard set points						
C BUSS A CM 4						
Diagnostic Alarm	1 Absolute		0	0	0	0
Impulsive Trans	2 Absolute		3430	0	0	0
Impulsive Trans	2 Absolute		3430	0	0	0
Impulsive Trans	2 Absolute		3430	0	0	0
Impulsive Trans	2 Absolute		3430	0	0	0
Impulsive Trans	2 Absolute		3430	0	0	0
Impulsive Trans	2 Absolute		3430	0	0	0
Impulsive Trans	2 Absolute		3430	0	0	0
Over Freq	2 Relative		105	0	103	0
Over Vab	2 Relative		105	300	105	0
Over Vab HS	2 Relative		109	300	106	0
Over Vbc	2 Relative		105	300	105	0
Over Vbc HS	2 Relative		109	300	106	0
Over Vca	2 Relative		105	300	105	0
Over Vca HS	2 Relative		109	300	106	0
Phase Rev	2 Absolute		0	0	0	0
Sag Vab	2 Relative		91	0	94	0
Sag Vbc	2 Relative		91	0	94	0
Sag Vca	2 Relative		91	0	94	0
Swell Vab	2 Relative		109	0	106	0
Swell Vbc	2 Relative		109	0	106	0
Swell Vca	2 Relative		109	0	106	0
Under Freq	2 Relative		95	0	97	0
Under Vab	2 Relative		95	300	95	0
Under Vab HS	2 Relative	95	300	95 3	0	
Under Vbc	2 Relative		95	300	95	0
Under Vbc HS	2 Relative	95	300	95 3	0	
Under Vca	2 Relative		95	300	95	0
Under Vca HS	2 Relative		95	300	95	0
Waveshape Vln	2 Absolute	10	100			

Example CM4000 Onboard Data Log

File: 1 Enabled Log Template:	1 1500 records FIFO
File: 2 Enabled Log Template:	1 1500 records FIFO
File: 3 Enabled Log Template:	2 721 records FIFO
File: 4 Enabled No Log Template	720 records FIFO
File: 5 Disabled No Log Template	0 records FIFO
File: 6 Disabled No Log Template	0 records FIFO
File: 7 Disabled No Log Template	0 records FIFO
File: 8 Disabled No Log Template	0 records FIFO
File: 9 Disabled No Log Template	0 records FIFO
File: 10 Disabled No Log Template	0 records FIFO
File: 11 Disabled No Log Template	0 records FIFO

File: 12 Disabled No Log Template 0 records FIFO
File: 13 Disabled No Log Template 0 records FIFO
File: 14 Disabled No Log Template 0 records FIFO
File: 23 Enabled Steady-State WFC 1 records FIFO 512 Samples/Cycles 1 Cycles 0 Cycles
File: 24 Enabled Disturbance WFC 30 records FIFO 512 Samples/Cycles 8 Cycles 1 Cycles
File: 25 Enabled Adaptive WFC 10 records FIFO 16 Samples/Cycles 4 Seconds 2 Cycles
File: 26 Enabled Alarm Log 1000 records FIFO 128 Samples/Cycles 1 Cycles 0 Cycles
File: 27 Enabled Max/Min/Avg Log 24 records FIFO 128 Samples/Cycles 1 Cycles 0 Cycles
File: 29 Enabled 100ms RMS Recorder 15 records FIFO 128 Samples/Cycles 60 Seconds 4 Seconds
File: 40 Enabled Transient WFC 30 records FIFO 5MHz ~83333 Samples/Cycles 2 msec

PART IV - SECTION K
REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

3.1-1 Clauses and Provisions Incorporated by Reference (December 2005)

This screening information request (SIR) or contract, as applicable, incorporates by reference the provisions or clauses listed below with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make the full text available, or offerors and contractors may obtain the full text via Internet at: http://conwrite.faa.gov (on this web page, select "Search and View Clauses").

3.2.2.7-7 Certification Regarding Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters (April 1996)
3.2.5-2 Independent Price Determination (October 1996)
3.3.1-35 Certification of Registration in Central Contractor Registration (CCR) (April 2006)
3.6.2-3 Walsh-Healey Public Contracts Act Representation (January 1998)
3.6.2-5 Certification of Nonsegregated Facilities (April 1996)
3.6.3-1 Clean Air and Water Certification (April 2000)
3.6.3-10 Certification of Toxic Chemical Release Reporting (August 1998)
3.6.3-11 Toxic Chemical Release Reporting (August 1998)
3.13-4 Contractor Identification Number/Data Universal Numbering System (DUNS) Number (April 2006)

3.2.2.3-35 Annual Representations and Certifications (July 2004)

The offeror certifies that annual representations and certifications (check the appropriate block):

[ ] (a) Dated _____ (insert date of signature on offer) which are incorporated by reference, have been submitted to the contracting office issuing this SIR and that the information is current, accurate, and complete as of the date of this offer, except as follows (insert changes that affect only this SIR; if 'none,' say so):

[ ] (b) Are enclosed.

(End of provision)

3.2.2.3-70 Taxpayer Identification (July 2004)

(a) Definitions.

(1) "Common parent," as used in this clause, means a corporate entity that owns or controls an affiliated group of corporations that files an offeror's (you, your) Federal income tax returns on a consolidated basis, and of which you are a member.

(2) "Corporate status," as used in this clause, means a designation as to whether you are a corporate entity, an unincorporated entity (for example, sole proprietorship or partnership), or a corporation providing medical and health care services.

(3) "Taxpayer Identification Number (TIN)," as used in this clause, means the number the Internal Revenue Service (IRS) requires you use in reporting income tax and other returns.

(b) All offerors must submit the information required in paragraphs (c) through (e) of this provision to comply with reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by IRS. The FAA will use this information to collect and report on any delinquent amounts arising out of your relation with the Federal Government, under Public Law 104 -134, the Debt Collection Improvement Act of 1996, Section 31001(I)(3). If the resulting contract is subject to the reporting requirements and you refuse or fail to provide the information, the Contracting Officer (CO) may reduce your payments 31 percent under the contract.

(c) Taxpayer Identification Number (TIN).

[ ] TIN: _____
[ ] TIN has been applied for.
[ ] TIN is not required because:
[ ] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not leave income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;
[ ] Offeror is an agency or instrumentality of a foreign government;
[ ] Offeror is an agency or instrumentality of a Federal, state, or local government;
[ ] Other--State basis. _____.

(d) Corporate Status.

[ ] Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;
[ ] Other corporate entity
[ ] Not a corporate entity
[ ] Sole proprietorship
[ ] Partnership
[ ] Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(e) Common Parent.

[ ] A common parent does not own or control the offeror as defined in paragraph (a).
[ ] Name and TIN of common parent:
Name _____
TIN _____

(End of provision)

Certain representations and certifications must be made by the offeror and must be filled in as appropriate. The signature of the offeror on the face page of this SIR/RFO (Standard Form 33 or Standard Form 26, as applicable) constitutes the making of certain representations and certifications. Award of any contract to the offeror shall be considered to have incorporated the applicable representations and certifications by reference.

K.1 NAICS CODE AND SMALL BUSINESS SIZE STANDARD (NOV 2000) CLA.0126

(1) The North American Industry Classification System (NAICS) code for this acquisition is 511210.
(2) The small business size standard is 750.
(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

K.2 SCREENING INFORMATION REQUEST DOCUMENT CERTIFICATION (MAR 1999) CLA.4532

By signature on the face of this SIR, the offeror certifies that the signee is an officer or employee of the firm submitting this offer who is responsible for the preparation of this offer. The signature further certifies that, to the best of their knowledge and belief, no changes have been made to any terms or conditions contained in the original documents/SIR as issued by the FAA. Offeror fully understands that failure to make disclosure of changes may cause the contract to be terminated for default or rescinded as being null and void and shall not be a legally binding contract.

3.2.2.3-2 Minimum Offer Acceptance Period (July 2004)

(a) 'Acceptance period,' as used in this provision, means the number of calendar days the FAA (we, us) has to award a contract from the date the SIR specifies for receiving offers.

(b) This provision supersedes any language about the acceptance period appearing elsewhere in this SIR.

(c) We require a minimum acceptance period of __150__ calendar days [the CO should insert the number of days].

(d) The offeror (you) may specify a longer acceptance period than the period shown in paragraph (c). To specify a longer period, fill in the blank: The offeror allows the following acceptance period: _____ calendar days.

(e) We may reject an offer allowing less than the FAA's minimum acceptance period.

(f) You agree to fulfill your offer completely if the FAA accepts your offer in writing within:

(1) The acceptance period stated in paragraph (c) of this provision; or

(2) Any longer acceptance period stated in paragraph (d) of this provision.

(End of provision)

3.2.2.3-10 Type of Business Organization (July 2004)

By checking the applicable box, the offeror (you) represents that--

(a) You operate as [ ] a corporation incorporated under the laws of the State of _____, [ ] an individual, [ ] a partnership, [ ] a nonprofit organization, [ ] a joint venture or [ ] other _____[specify what type of organization].

(b) If you are a foreign entity, you operate as [ ] an individual, [ ] a partnership, [ ] a nonprofit organization, [ ] a joint venture, or [ ] a corporation, registered for business in _____.
(country)

3.2.2.3-15 Authorized Negotiators (July 2004)

The offeror states that the following persons are authorized to negotiate on your behalf with the FAA in connection with this offer:
Name:_____
Title:_____
Phone number:_____

3.2.2.3-23 Place of Performance (July 2004)

(a) The offeror (you), in fulfilling any contract resulting from this SIR, [ ] intends, [ ] does not intend (check applicable block) to use one or more plants or facilities located at a different address from your address as stated in this offer.

(b) If you check 'intends' in paragraph (a) above, insert the following information:
Place of Performance Street:
City:
State:
Zip Code:
Name of owner and operator, if other than the owner

3.2.2.3-70 Taxpayer Identification (July 2004)

(a) Definitions.

(1) "Common parent," as used in this clause, means a corporate entity that owns or controls an affiliated group of corporations that files an offeror's (you, your) Federal income tax returns on a consolidated basis, and of which you are a member.

(2) "Corporate status," as used in this clause, means a designation as to whether you are a corporate entity, an unincorporated entity (for example, sole proprietorship or partnership), or a corporation providing medical and health care services.

(3) "Taxpayer Identification Number (TIN)," as used in this clause, means the number the Internal Revenue Service (IRS) requires you use in reporting income tax and other returns.

(b) All offerors must submit the information required in paragraphs (c) through (e) of this provision to comply with reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by IRS. The FAA will use this information to collect and report on any delinquent amounts arising out of your relation with the Federal Government, under Public Law 104 -134, the Debt Collection Improvement Act of 1996, Section 31001(I)(3). If the resulting contract is subject to the reporting requirements and you refuse or fail to provide the information, the Contracting Officer (CO) may reduce your payments 31 percent under the contract.

(c) Taxpayer Identification Number (TIN).

[ ] TIN: _____

[ ] TIN has been applied for.

[ ] TIN is not required because:

[ ] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not leave income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.;

[ ] Offeror is an agency or instrumentality of a foreign government;

[ ] Offeror is an agency or instrumentality of a Federal, state, or local government;

[ ] Other--State basis. _____.

(d) Corporate Status.

[ ] Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;

[ ] Other corporate entity

[ ] Not a corporate entity

[ ] Sole proprietorship

[ ] Partnership

[ ] Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(e) Common Parent.

[ ] A common parent does not own or control the offeror as defined in paragraph (a).

[ ] Name and TIN of common parent:

Name _____

TIN _____

3.2.2.3-76 Representation- Release of Contract Information (July 2004)

(a) Any contract resulting from this SIR may be subject to release under the Freedom of Information Act (FOIA), 5 U.S.C. Section 552.

(b) The offeror's (you, your) position regarding the possible release of information you provide in response to this SIR is as follows:

(c) REPRESENTATION CONCERNING RELEASE OF CONTRACT INFORMATION--
The offeror (you) represents that--(1)[ ] You have made a complete review of your offer(s) in response to this SIR and no exemption from mandatory release under FOIA exists, and, (2)[ ] You have no objection to the release of any contract you may be awarded in whole or in part resulting from this SIR.

OR

The offeror (you) represents that [ ] your offer(s) in response to this SIR contains information that is exempt from mandatory release under FOIA. Accordingly, you represent that--(1)[ ] You have identified any sensitive documents you submitted in response to this SIR by placing restrictive markings on them. This may include trade secrets, proprietary information, or commercial or financial information that is privileged or confidential, and (2)[ ] As the party that provided the information, you have provided the Contracting Officer (by separate letter concurrent with this offer) detailed information listing the page(s) to be withheld complete with any and all legal justifications which would permit the FAA to invoke a FOIA exemption

3.2.2.7-7 Certification Regarding Debarment, Suspension, Proposed Debarment, and Other Responsibility Matters (April 1996)

(a) The Offeror certifies, to the best of its knowledge and belief, that--

(i) The Offeror and/or any of its Principals--

(A) Are [ ] are not [ ] presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have [ ] have not [ ] within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers: or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; and

(C) Are [ ] are not [ ] presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(ii) The Offeror has [ ] has not [ ] within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

'Principals,' for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions). THIS CERTIFICATION CONCERNS A MATTER WITHIN THE JURISDICTION OF AN AGENCY OF THE UNITED STATES AND THE MAKING OF A FALSE, FICTITIOUS, OR FRAUDULENT CERTIFICATION MAY RENDER THE MAKER SUBJECT TO PROSECUTION UNDER SECTION 1001, TITLE 18, UNITED STATES CODE.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this SIR. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this SIR for default.

3.6.2-3 Walsh-Healey Public Contracts Act Representation (January 1998)

The offeror represents as a part of this offer that the offeror:
is [ ] or is not [ ] a regular dealer in, or
is [ ] or is not [ ] a manufacturer of, the supplies offered.

3.6.2-6 Previous Contracts and Compliance Reports (April 1996)

The offeror represents that--(a) It [ ] has, [ ] has not, participated in a previous contract or subcontract subject either to the "Equal Opportunity" clause of this solicitation, the clause originally contained in Section 310 of Executive Order No. 10925, or the clause contained in Section 201 of Executive Order No. 11114; (b) It [ ] has, [ ] has not, filed all required compliance reports; and (c) Representations indicating

submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

3.6.2-8 **Affirmative Action Compliance** (April 1996)

The offeror represents that (a) it [ ] has developed and has on file, [ ] has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or (b) it [ ] has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

PART IV - SECTION L
INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS

3.1-1 Clauses and Provisions Incorporated by Reference (December 2005)

This screening information request (SIR) or contract, as applicable, incorporates by reference the provisions or clauses listed below with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make the full text available, or offerors and contractors may obtain the full text via Internet at: http://conwrite.faa.gov (on this web page, select "Search and View Clauses").

3.1.7-4 **Organizational Conflict of Interest SIR Provision - Short Form** (March 2006)
3.2.2.3-1 **False Statements in Offers** (July 2004)
3.2.2.3-3 **Affiliated Offerors** (July 2004)
3.2.2.3-6 **Submittals in the English Language** (July 2004)
3.2.2.3-7 **Submittals in U.S. Currency** (July 2004)
3.2.2.3-11 **Unnecessarily Elaborate Submittals** (July 2004)
3.2.2.3-12 **Amendments to Screening Information Requests** (July 2004)
3.2.2.3-13 **Submission of Information/Documentation/Offers** (July 2004)
3.2.2.3-14 **Late Submissions, Modifications, and Withdrawals of Submittals** (July 2004)
3.2.2.3-16 **Restricting, Disclosing and Using Data** (July 2004)
3.2.2.3-17 **Preparing Offers** (July 2004)
3.2.2.3-18 **Prospective Offeror's Requests for Explanations** (July 2004)
3.2.2.3-19 **Contract Award** (July 2004)
3.2.2.3-20 **Electronic Offers** (July 2004)
3.2.2.3-72 **Announcing Competing Offerors** (July 2004)

L.1 Information and Considerations Affecting Vendor Proposal Submissions

(a) This acquisition will involve the use of streamlined acquisition procedures employing best practices for competitive negotiated procurements as authorized by the Federal Aviation Administration Acquisition Management System (AMS) of 1997.
(b) The procurement process will involve the evaluation of the technical proposal and cost/price proposal. Evaluations involved will permit the FAA to understand if the vendor understands the contract and if the cost/price is reasonable and fair.
(c) Specific attention is invited to AMS paragraph 3.2.2.3.1.2.2, Communications with Offerors. The FAA may communicate with the vendor at any time during SIR process.
(d) This document constitutes a formal SIR for which an award may be made without further discussions/negotiations. The vendor is to consider all terms and conditions contained in the formal SIR in preparation of their proposals as set forth herein.

L.2 Instructions for Preparation and Submission of Proposals

(a) The Vendor will submit information identified in the volumes as set forth in paragraph (b) below. The data submitted should be complete, concise and relevant to the requirements of the SIR/RFO and are required to be submitted in the prescribed formats subsequently identified herein.

(b) The titles and contents of the volumes should be as set forth below with the required number of copies. Each volume should be submitted in separate individual binders/folders.

Proposal Organization

Volume	Title	Copies
I	Contract Documentation	1
II	Relevant Past Performance and Experience	1
III	Software Proposal	1
IV	Logistics Proposal	1
V	Training Proposal	1

(c) Page Limitations.
Page limitations shall be treated as maximums. If exceeded, the excess pages beyond the stated page limit will be removed from the proposal and not be considered. Each page shall be counted except cover pages, table of contents, list of tables or drawings, tabs, and glossaries. **CAUTION: Evaluators will read only up to the page limit as specified for each volume and evaluate accordingly.**

(d) Common items for all volumes:
(1) When both sides of a sheet display printed material, it shall be counted as 2 pages.
(2) Volume cover shall designate volume title along with applicable page(s) the Vendor deems competition sensitive.
(3) All volumes should be separately bound in three-ring, loose-leaf binder.

(e) **Volume I - Contract Documentation** This volume will be in both FAA and Vendor format. This will provide information to the FAA for preparing the contract document and supporting file. Vendor must complete and submit:
(1) Section A, Solicitation, Offer and Award (SF33), Blocks 12 through 18;
(2) Section B, Supplies or Services and Prices/Costs;
(3) Section K, Representations and Certifications; and,
(4) Vendor's published products/services/GSA price list/catalog on which Section B prices were based.
*(**Note**: Completion of documents identified at (1) through (3) above indicates that the Vendor has read and agrees to the terms and conditions contained in RFO. The FAA may consider Vendor offer that take exception to the terms and conditions of the RFO to be unacceptable and thereby ineligible for award.*

(f) **Voume II – Relevant Past Performance and Experience.**
(1) This documentation will be in both FAA and Vendor format as follows:
(A) Vendor's Relevant Past Performance and Experience History. Vendor format. Total page count including Vendor key personnel, and if applicable, any critical first tier subcontractors, teaming partners or joint venture partners, is ten (15) pages.
(Note: The documentation provided by the Vendor relative to past performance and experience should evidence the distinction between past *performance*— "how well" the Vendor has performed, and *experience*—the Vendor has "done it" before.)
(2) General. Vendor will provide information on past and present contracts that demonstrate an ability to perform contracts similar in scope and complexity to this requirement. Relevant past performance and experience can be on prior or present government and/or commercial sector contracts requiring the following: Program Management; Site Modeling and Site Survey; Programmable Logic Controller Mapping; Software integration; software support; and Training. These can be contracts containing all the elements or on separate contract(s) providing the same services. Past performance and experience of key personnel, prior to working for the present vendor, or on similar contract(s), is applicable.

(g) **Volume III – Software Proposal.** This documentation will be in Vendor format. The software proposal is limited thirty (30) pages while addressing the following:

- Paladin Foreseer and Bundled Software Licenses.
- Paladin Plug In Module - Crystal Reporting.
- Paladin Plug In Module – Arc Flash Energy.
- Paladin Designer Software, License.
- Paladin VI Enterprise Server Software, License, configuration, and integration.
- Paladin Channel Up-Grade, License.

(h) **Volume IV – Technical and Administrative Supply Support Proposal and Documentation.** The support proposal is limited to ten (10) pages. The proposal must be sufficiently detailed to enable the Government to make a thorough evaluation and to arrive at a sound determination as to whether the Vendor's proposal meets the requirements of the SOW and Section G, paragraph G.5 Warranty.

(1) Submit in the following format:

(A) Support proposal document:

i. Page Printing. Page size shall be 8.5x11 inches, except if applicable, foldouts are 11x17 inches.

ii. Pages shall be single-spaced typed with single line spacing.

iii. Volume/Page. A footer identifying the volume number, page number, and total number of pages should be placed on the bottom of each page.

(B) Quality Assurance Plan—Vendor format.

(2) General. Provide information that demonstrates a fully integrated organizational approach with clear lines of authority. Describe your approach to efficiently and effectively interface and communicate with the Government. Demonstrate ability to provide an integrated logistics system as specified in the SOW Section 3.4. In the narrative address the ability to provide spare parts, training and 24/7 phone technical support, and on-site technical support services. Address maintainability and ease of maintenance that is inherent in proposed equipment and system design such as accessibility of most frequently replaced parts.

(3) Software. In the narrative provide identification of software, including third party applications or operating systems if required, and any data rights agreements that might restrict Government rights. Also include a description of the vendor policy approach to the management of software changes and distribution of those changes that have an effect on deployed software programs. See SOW Section 3.3.1 and 3.9. Demonstrate the vendor has an integrated approach to notifying equipment users of changes to software. Describe means the vendor would use to distribute the information and implement the manual changes and software changes. Indicate the corporate configuration control methodology. Do not just claim compliance with ISO standards, actually describe how the configuration control is successfully implemented and provide documentation of the companies Configuration Management Plan.

(i) **Volume V – Training Proposal.** The training proposal must be sufficiently detailed to enable the Government to make a thorough evaluation and to arrive at a sound determination as to whether the proposed meets the requirements of the SOW.

(1) The training proposal is limited to ten (10) pages (Vendor format) and is to be submitted within the following guidelines:

(A) Page Printing. Page size shall be 8.5x11 inches, except if applicable, foldouts are 11x17 inches.

(B) Pages shall be single-spaced typed with single line spacing.

(C) Volume/Page. A footer identifying the volume number, page number, and total number of pages should be placed on the bottom of each page.

(2) General. Provide information that demonstrates how the vendor's current factory training program is developed, managed, and implemented into an effective training program. The narrative should include a description of the vendor's approach to the training required for technical personnel in supporting software fielded at FAA facilities. List all the training course required with this

software purchase. The narrative shall also describe the vendor's factory training facilities, and instructors qualifications, see SOW Section 3.10.

L.3 Relationship Between Sections L and M

Your attention is directed to the functional relationship between Sections L and M of this SIR/RFO. Section L provides information for the purpose of organizing the proposal and is not intended to be all-inclusive. Section M describes evaluation factors for award. Since the Government evaluation of proposals will cover all areas identified in Section M, proposals should address all such areas for evaluation.

L.4 Submission of Supporting Cost or Pricing Data

(a) If after receipt of vendor's Section-B cost proposal, and supporting information, the Government determines additional cost information is needed the vendor shall provide current, complete and accurate cost or pricing data within ten (10) calendar days after receipt of the contracting officer's request.

L.5 Disposition of Proposals

Proposal originals will be retained in the contract file.

L.6 Request for Modification of Contract Terms and Conditions (Jan 1997) CLA.4533

Vendor is hereby notified that the terms and conditions of this SIR shall be changed only through formal amendment(s) issued by the Contracting Officer. If the vendor takes issue with the terms and conditions contained herein, the vendor shall submit a Request for Modification of Terms and Conditions under separate attachment to their proposal. This request should be in vendor's format, on vendor's letterhead, signed by an officer of the company with authority to bind the vendor. The request must include documentation that fully highlights the vendor's proposed changes and must be specific as to the exact term(s) or condition (s) to which the exception(s) are being taken. These changes shall not be binding on the FAA until fully agreed to by both the FAA and the vendor and incorporated into the document prior to contract award.

3.2.4-1 Type of Contract (R) (April 1996)

The FAA will award an Indefinite-Delivery/Indefinite-Quantity (ID/IQ) type contract combining both Firm-Fixed-Price and Time-and-Materials pricing arrangements resulting from this Screening Information Request.

3.9.1-3 Protest (November 2002)

AS A CONDITION OF SUBMITTING AN OFFER OR RESPONSE TO THIS SIR (OR OTHER SOLICITATION, IF APPROPRIATE), THE VENDOR OR POTENTIAL VENDOR AGREES TO BE BOUND BY THE FOLLOWING PROVISIONS RELATING TO PROTESTS:

(a) Protests concerning Federal Aviation Administration Screening Information Requests (SIRs) or awards of contracts shall be resolved through the Federal Aviation Administration (FAA) dispute resolution system at the Office of Dispute Resolution for Acquisition (ODRA) and shall be governed by the procedures set forth in 14 C.F.R. Parts 14 and 17, which are hereby incorporated by reference. Judicial review, where available, will be in accordance with 49 U.S.C. 46110 and shall apply only to final agency decisions. A protestor may seek review of a final FAA decision only after its administrative remedies have been exhausted.

(b) Vendors initially should attempt to resolve any issues concerning potential protests with the Contracting Officer. The Contracting Officer should make reasonable efforts to answer questions

promptly and completely, and, where possible, to resolve concerns or controversies. The protest time limitations, however, will not be extended by attempts to resolve a potential protest with the Contracting Officer.

(c) The filing of a protest with the ODRA may be accomplished by mail, overnight delivery, hand delivery, or by facsimile. A protest is considered to be filed on the date it is received by the ODRA.

(d) Only an interested party may file a protest. An interested party is one whose direct economic interest has been or would be affected by the award or failure to award an FAA contract. Proposed subcontractors are not "interested parties" within this definition.

(e) A written protest must be filed with the ODRA within the times set forth below, or the protest shall be dismissed as untimely:

(1) Protests based upon alleged improprieties in a solicitation or a SIR that are apparent prior to bid opening or the time set for receipt of initial proposals shall be filed prior to bid opening or the time set for the receipt of initial proposals.

(2) In procurements where proposals are requested, alleged improprieties that do not exist in the initial solicitation, but which are subsequently incorporated into the solicitation, must be protested not later than the next closing time for receipt of proposals following the incorporation.

(3) For protests other than those related to alleged solicitation improprieties, the protest must be filed on the later of the following two dates:

(i) Not later than seven (7) business days after the date the protester knew or should have known of the grounds for the protest; or

(ii) If the protester has requested a post-award debriefing from the FAA Product Team, not later than five (5) business days after the date on which the Product Team holds that debriefing.

(f) Protests shall be filed at:

(1) Office of Dispute Resolution for Acquisition, AGC-70,
Federal Aviation Administration,
800 Independence Ave., S.W.,
Room 323,
Washington, DC 20591,
Telephone: (202) 267-3290,
Facsimile: (202) 267-3720; or

(2) Other address as specified in 14 CFR Part 17.

(g) At the same time as filing the protest with the ODRA, the protester shall serve a copy of the protest on the Contracting Officer and any other official designated in the SIR for receipt of protests by means reasonably calculated to be received by the Contracting Officer on the same day as it is to be received by the ODRA. The protest shall include a signed statement from the protester, certifying to the ODRA the manner of service, date, and time when a copy of the protest was served on the Contracting Officer and other designated official(s).

(h) Additional information and guidance about the ODRA dispute resolution process for protests can be found on the ODRA Website at http://www.faa.gov.

3.13-4 Contractor Identification Number—Data Universal Numbering System (DUNS) Number (August 1997)

(a) "Contractor Identification Number," as used in this provision, means "Data Universal Numbering System (DUNS) number, which is a nine digit number assigned by Dun and Bradstreet Information Services.

(b) Contractor identification is essential for complying with statutory contract reporting requirements. Therefore, the offeror shall submit its DUNS number, annotated as "DUNS" following its name and address on the cover sheet of its proposal.

(c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror should call Dun and Bradstreet at 1-800-333-0505.

The offeror should be prepared to provide the following information:

(1) Company name.
(2) Company address.
(3) Company telephone number.
(4) Line of business.
(5) Chief executive officer/key manager.
(6) Date the company was started.
(7) Number of people employed by the company.
(8) Company affiliation.

(d) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet Home Page at http://www.dbis.customer/custlist.htm. If an offeror is unable to locate a local service center, it may send and e-mail to Dun and Bradstreet at globalinfo@dbisma.com.

PART IV - SECTION M
EVALUATION FACTORS FOR AWARD

3.1-1 Clauses and Provisions Incorporated by Reference (December 2005)

This screening information request (SIR) or contract, as applicable, incorporates by reference the provisions or clauses listed below with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make the full text available, or offerors and contractors may obtain the full text via Internet at: http://conwrite.faa.gov (on this web page, select "Search and View Clauses").

3.2.4-31 Evaluation of Options (April 1996)

M.1 Introduction

(a) The offer's technical information and past and present performance will be evaluated by a team in accordance with a pre-established evaluation plan.

(b) Cost/Price proposals will be reviewed for mathematical accuracy for the base contract year and the four option years. The Cost/Price evaluation team will compare the offer's proposed prices with historical cost of purchasing the same type software, software integration service, PLC mapping, and Site Modeling and Site survey historic costs; and, GSA catalog costs.

M.2 Technical Evaluation

(a) Selection of a contractor for award will be based on evaluation of technical proposals according to the four (4) factors listed below. These four (4) factors are listed in descending order of importance.

(1) **Factor 1 – Relevant Past Performance and Experience**
Sub Factor 1 – Relevant Past Performance
Sub Factor 1.1 - Program Management
Sub Factor 1.2 – Site Modeling and Site Survey
Sub Factor 1.3 – Programmable Logic Controller Mapping
Sub Factor 1.4 – Software Integration
Sub Factor 1.5 – Technical and Administrative Support
Sub Factor 1.6 - Training
Within Sub Factor 1, Sub Factors 1.1 through 1.5 are equal in importance while Sub Factor 1.6 is significantly less important.

Sub Factor 2 – Relevant Experience
Sub Factor 2.1 – Contractor Experience
Sub Factor 2.2 – Key Personnel Qualifications and Experience
Within Sub Factor 2, Sub Factor 2.1 is significantly more important than Sub Factor 2.2.
Within Factor 1, Sub Factors 1 and 2 are equal in importance.

(2) **Factor 2 – Software**
Sub Factor 1.1 - Paladin Foreseer and Bundled Software Licenses.
Sub Factor 1.1 - Paladin Plug In Module - Crystal Reporting.
Sub Factor 1.1 - Paladin Plug In Module – Arc Flash Energy.
Sub Factor 1.1 - Paladin Designer Software, License.

Sub Factor 1.1 - Paladin Designer Software, License.
Sub Factor 1.1 - Paladin VI Enterprise Server Software, License, configuration, and integration.
Sub Factor 1.1 - Paladin Channel Up-Grade, License.
All Sub Factors are equal in importance.

(3) **Factor 3 – Technical and Administrative Support**
(4) **Factor 4 - Training**

(b) Factors 1 and 2 are equal in importance. Factors 1 and 2 are more important than Factor 3. Factor 3 is significantly greater in importance than Factor 4.

(c) Factors will be rated by the evaluation team on the rating scale shown below. Team ratings for each factor will be weighted to establish a score for the technical proposal.

4	=	Excellent
3	=	Good
2	=	Satisfactory
1	=	Marginal
0	=	Poor

(d) The numerical ratings relate to the following described assumptions:

Excellent (4.0): All aspects of the evaluation factor are addressed in a highly competent and logical fashion. Information provided clearly demonstrates that requirements can be met in a manner that far exceeds an acceptable level. Initial submittals, along with additional material submitted, demonstrate that performance can be provided in an excellent manner. Weaknesses are not evident to any degree.

Good (3.0): All aspects of the evaluation factor are addressed in a competent and logical fashion. Information clearly demonstrates that requirements can be met in a manner, which exceeds an acceptable level. Initial submittals, along with additional material submitted, demonstrate that performance could be provided at a level above average requirements. Weaknesses, if evident, are insignificant.

Satisfactory (2.0): All aspects of the evaluation factor are addressed in a competent and Logical fashion. Performance capability is determined to be acceptable so that all requirements can be met. Any weaknesses will not seriously degrade performance and can be corrected with minor effort.

Marginal (1.0): All aspects of the evaluation factor are addressed. Information provided demonstrates that only minimum acceptable requirements can be fully met. There is some concern that a satisfactory performance level can be achieved or sustained. Weaknesses or deficiencies are evident and may require considerable effort to correct.

Poor (0.0): Fails to address key aspects of the evaluation factor. Information provided indicates that minimum requirements cannot be met. Weaknesses or deficiencies are considered significant and will require major correction(s).

M.3 Price Analysis

(a) It is anticipated that proposed prices received resulting from this SIR/RFO will be determined fair and reasonable based on adequate price competition. The FAA will conduct a price analysis to determine price reasonableness based on similar software; software integration service, PLC mapping, and Site Modeling and Site survey software integration service, PLC mapping, and Site Modeling and Site survey historic costs; and, GSA catalog costs. If reasonableness of price cannot be determined, the FAA

will evaluate additional information required as a result of Provision L.4 herein to establish price reasonableness.

M.4 Risk Assessment

The FAA will assess the proposal based upon perceived risks to the FAA associated with the offer, to include, but not be limited to, the areas of past performance, technical competence and understanding of the work requirements and reasonableness of offered prices to ensure satisfactory performance of any resultant contract.

M.5 Single Award

Notwithstanding any other provision of this SIR/RFO, award of this contract will be made to one vendor.